ViewStation User Guide

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Read and understand the following instructions before using the system:

- Close supervision is necessary when the system is used by or near children. Do not leave unattended while in use.
- Only use electrical extension cords with a current rating at least equal to that of the system.
- Always disconnect the system from power before cleaning and servicing and when not in use.
- Do not spray liquids directly onto the system when cleaning. Always apply the liquid first to a static-free cloth.
- Do not immerse the system in any liquid or place any liquids on it.
- Do not disassemble this system (except as instructed in the manufacturer's instructions). To reduce the risk of shock and to maintain the warranty on the system, a qualified technician must perform service or repair work.
- Connect this appliance to a grounded outlet.
- In case of lightning storms, disconnect the telephone line cord from the system, and only connect the system to surge-protected power outlets.
- Keep ventilation openings free of any obstructions.
- SAVE THESE INSTRUCTIONS.

Plug Acts as Disconnect Device

The socket outlet to which this apparatus is connected must be installed near the equipment and must always be readily accessible.

Regulatory Notices

FCC Notice

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

Changes or modifications not expressly approved by Polycom could void the user's authority to operate this equipment.

- This equipment complies with Part 68 of the FCC Rules. On the bottom of this equipment is a label that contains, among other information, the FCC registration number and Ringer Equivalence Number (REN) for this equipment. If requested, provide this information to your telephone company.
- Before connecting your unit, you must inform your telephone company of the following information:

Port ID	REN/SOC	USOC
Loop Start (“POTS” Port)	0.5	RJ11C

- FCC compliant telephone cords and modular plugs are provided with this equipment. This equipment is designed to be connected to the telephone network or premises’ wiring using a compatible modular jack, which is Part 68 compliant. See installation instructions for details.
- The REN is useful to determine the quantity of devices that may be connected to the telephone line. Excessive REs on the telephone line may result in the devices not ringing in response to an incoming call. In most, but not all areas, the sum of REs of all devices that may be connected to a line, as determined by the total RENs, contact the local telephone company.
- If your ViewStation causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. However, if advance notice is not practical, you will be notified as soon as possible. You will be advised of your right to file a complaint with the FCC if you believe it is necessary.

- Your telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the operation of your equipment. If they do, you will be given advance notice so as to give you an opportunity to maintain uninterrupted service.
- If you experience trouble with this equipment, ViewStation, please contact your equipment provider for repair/warranty information. If your equipment is causing harm to the telephone network, the telephone company may request that you disconnect the equipment until the problem is resolved.
- There are no user-serviceable parts inside the videoconferencing unit, remote control, microphone pod, or power supply.
- This equipment may not be used on a public coin service provided by the telephone company. Connection to party lines is subject to state tariffs. Contact your state public utility commission or corporation commission for information.

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The system is intended to be powered only by the accompanying power supply unit.

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This ViewStation and ViewStation product line has been marked with the CE mark. This mark indicates compliance with EEC Directives 89/336/EEC, 73/23/EEC 1999/5/EC. A full copy of the Declaration of Conformity can be obtained from Polycom Ltd. 270 Bath Road, Slough UK, SL1 4DX.

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Hermed erklærer Polycom, Ltd., at indestående ViewStation and ViewStation product line er i overensstemmelse med de grundlæggende krav og de relevante punkter i direktiv 1999/5/EF.

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Preface — How To Use This Guide

Thank you for purchasing a Polycom ViewStation! Soon you will discover that video communications using the ViewStation is easy, fun, and productive. Polycom ViewStations are the most easy to use video communications systems on the market today.

This User Guide provides information about setting up and using the following Polycom ViewStation products:

- ViewStation H.323 with stand-alone IP
- ViewStation H.323 with a Quad BRI network interface module
- ViewStation 128 with single ISDN
- ViewStation H.323 with a V.35 network interface module
- ViewStation H.323 with Avaya DCP network interface module
- ViewStation MP — ViewStation with Quad BRI or Avaya DCP with Multi-Point enabled software.

If you purchased a ViewStation SP or ViewStation SP384, see the *ViewStation SP or SP384 User Guide*.

If you purchased a ViewStation FX or VS4000, see the *ViewStation FX and VS4000 User Guide*.

Each ViewStation product has a document called a *QuickStart* card, which is shipped in the box with your ViewStation. The *QuickStart* card illustrates how to connect the required cables and optional equipment to the ViewStation.

ViewStation Basics

The Graphic User Interface (GUI) is designed for ease of use. The following table is a definition of key icon functions:

Icon	Icon Name	Function
	Text Tab	The purpose of the Text Tab is to enable the user to enter alphanumeric characters into the ViewStation. Numbers are entered with the remote control. To enter alpha characters press the SELECT button on the remote control.
	Select Button	The SELECT button shown is on the remote control.
	Network Connectivity Error	The **Network Connectivity Error** icon indicates severe packet loss between the near end and the far end ViewStations.
	Call Speed Indicators	The Call Speed Indicators illustrate the call speed of the near end or the far end ViewStation. Speeds may be set from the **Dialing Speeds** screen. See **Dialing Speeds** on page 71.
	Network Line Indicator	The Network Line Indicators are shown when the ViewStation is powered on. Yellow Box: Checking line status Red Down Arrow: Error in network link Green Up Arrow: Line is connected

Usability Conventions

This guide uses navigational conventions to make ViewStation setup and troubleshooting easy. These conventions are marked in **BOLD** for each screen followed by a greater than symbol (**>**) to indicate navagation. Figure A is an example of this convention.

To view the User Setup options, go to **System Info > User Setup.**

Figure A: Conventions Flow Example

1

Getting Started

This chapter explains what you need to get started, what's in the box, how to use the remote control, how to up the ViewStation, how to configure the ViewStation for a specific network interface, and how to use ViewStation help.

What You Need to Get Started

The following items are required:

- A television monitor
- A network connection
- A power source

Additionally, the following items are required for each ViewStation as listed below:

- ViewStation H.323 — A Local Area Network (LAN) Ethernet connection.
- ViewStation H.323 with optional Quad BRI network interface module — Up to four ISDN lines from the ISDN service provider and an optional Ethernet LAN connection if H.323 is used.
- ViewStation H.323 with optional Avaya DCP network interface module — Up to four DCP lines from a Definity PBX. The ViewStation DCP uses the wall jack ports connected to the Lucent Definity PBX and an optional Ethernet LAN connection if H.323 is used.
- ViewStation 128 — An ISDN line for up to 128 Kbps video communications and an optional Ethernet LAN connection if H.323 is used.
- ViewStation H.323 with V.35 network interface module — Access to a Data Communications Equipment (DCE) or Data Service Unit (DSU) and an Ethernet LAN connection if H.323 is used.
- ViewStation MP (Quad BRI or Avaya DCP with Multi-Point calling, and up to four ISDN or DCP lines) — A software license

to enable multi-point calling capability on the ViewStation H.323 with BRI or DCP, and an Ethernet LAN connection if H.323 is used.

Note Multi-Point is available for the ViewStation H.323 or ViewStation 128 with a hardware upgrade.

Television Monitors

Any S-Video or composite television monitor with RCA input ports may be used with the ViewStation. The size of the television monitor should be proportional to the size of the room where the ViewStation is used. One television monitor may be used for video and a second monitor may be used to display graphics.

Power Source

The ViewStation has an auto-sensing 62-watt external power supply that supports line voltages between 100 and 240 VAC, 50 to 60 Hz.

NT-1 Device

An ISDN Network Termination (NT-1) device may be required between the ISDN line and the ViewStation if your system is connected to a PBX or an ISDN line in North America, specifically, an ISDN U interface.

What's in the Box

The following items are included in the box. These items pertain to all ViewStation models. If an item is missing or damaged, contact your reseller.

What's in the Box	ViewStation Models					
	H.323	512	128	V.35	MP	DCP
ViewStation Unit	√	√	√	√	√	√
Microphone Pod	√	√	√	√	√	√
Remote Control	√	√	√	√	√	√
Power Supply with Cord	√	√	√	√	√	√

What's in the Box	ViewStation Models					
	H.323	512	128	V.35	MP	DCP
QuickStart Card	√	√	√	√	√	√
Read Me First Document	√	√	√	√	√	√
User Documentation on CDROM	√	√	√	√	√	√
Required Cables	3	3	3	3	3	3
Optional Cables	8	8	8	8	8	8
Miscellaneous Package	√	√	√	√	√	√
RJ-45 Cables		4			4	
V.35 Interface Adapter				√		
Quad BRI (IMUX)		√			√	
DCP Module						√
Embedded 4-Port MCU					√	
RJ-45 White Connector Cable						1

Using the Remote Control

The remote control packaged with the ViewStation is an integral part of the unit. Use the remote to highlight and select icons on the television monitor, enter alphanumeric characters in text fields, configure the address book, move the camera, adjust the volume, and place video calls. Remote control functionality is described on the ViewStation *QuickStart* card.

Setting Up the ViewStation

Setting up the ViewStation is easy. First, locate the *QuickStart* card in the ViewStation box.

The cable connectors are color-coordinated with the corresponding connectors on the back of the ViewStation and the optional network interface modules. To connect the ViewStation, use the *QuickStart* card as a guide and follow the steps below.

1. Place the ViewStation unit on top of the television monitor as shown in Figure 1-1. Ensure that the front lip of the ViewStation unit hangs over the edge of the television monitor.

Note Verify that the top surface area on the monitor is adequate to support the ViewStation. The surface area of the television monitor should provide enough support to prevent the ViewStation from sliding off the monitor.

Figure 1-1. Placing the ViewStation

2. Connect the required cables to the back of the ViewStation as shown in the ViewStation *QuickStart* card.
3. Center the microphone pod on a flat surface between the meeting participants and the ViewStation.
4. Connect optional equipment, such as an additional television monitor, a Video Cassette Recorder (VCR), a laptop, or a document camera to the back of the ViewStation.

Secure all loose cables with the provided cable tie. This prevents cables from getting tangled.

1. Slide one end of the cable tie through the square plastic cable holder.
2. Attach the square connector to the back of the television monitor.

Connecting the ViewStation to the ISDN or DCP Network

This section describes how to connect the ViewStation with the following options to an ISDN or DCP network:

- ViewStation H.323 with Quad BRI
- ViewStation H.323 with Avaya DCP
- ViewStation 128

Before setting up the ViewStation to an ISDN network, ensure all network connectivity issues are tested and resolved.

ViewStation H.323 with Quad BRI

The ViewStation H.323 with Quad BRI uses up to four ISDN lines for network connectivity and requires a Polycom Quad BRI inverse multiplexer. The Quad BRI provides connectivity at a maximum H.320 data rate of 512 Kbps. Complete the following steps to connect the ViewStation H.323 with Quad BRI to the network:

1. Connect four ISDN lines from RJ-45 wall jacks on the ISDN network to the connectors labeled ISDN S/T on the Quad BRI network interface module.
2. Connect the green-tipped RJ-45 cable to the green RJ-45 port on the back of the ViewStation as shown on the *QuickStart* card.
3. Connect the opposite end of the green-tipped RJ-45 cable into the green RJ-45 port labeled on the Quad BRI network interface module.

NT-1. If you are connected to an internal phone system, commonly called a PBX, you need to connect the ISDN cables from the Quad BRI network interface module to an ISDN network termination (NT-1) device, which is connected to the ISDN wall jack.

For more ISDN information, refer to the Appendix D, *ISDN Information,"* on page 203.

Once the interface is properly connected, the ViewStation H.323 with Quad BRI is ready to be configured for Ethernet LAN connectivity.

ViewStation H.323 with Avaya DCP

The ViewStation H.323 with Avaya DCP uses up to four DCP lines for network connectivity and requires an Avaya DCP inverse multiplexer. The Avaya DCP inverse multiplexer provides connectivity to conduct videoconferences at a maximum H.320 data

rate of 512 Kbps. Complete the following steps to connect the ViewStation H.323 with Avaya DCP to the network:

1. Connect up to four DCP lines from RJ-45 wall jacks on the DCP network to the connectors labeled ISDN S/T on the DCP network interface module.
2. Locate the DCP cable shipped with the DCP network interface module. This cable is identified with one transparent-tipped keyed RJ-45 connector and a black-tipped non-keyed RJ-45 connector. Connect the RJ-45 cable with the black tip to the green RJ-45 port on the back of the ViewStation as shown on the *QuickStart* card.
3. Connect the opposite end of the keyed, white-tipped RJ-45 cable into the green RJ-45 port labeled on the DCP network interface module.

Once the interface is properly connected, the ViewStation H.323 with Avaya DCP is ready to be configured for Ethernet LAN connectivity. See *Connecting the ViewStation to an Ethernet LAN,"* on page 8.

Note The ViewStation MP uses the Polycom Quad BRI network interface module or the Avaya DCP network interface module and up to four ISDN or DCP lines for network connectivity. Use the Quad BRI or Avaya DCP network configurations to connect your ViewStation MP to the network.

ViewStation 128

The ViewStation 128 uses a single ISDN line and requires no additional hardware (e.g., network interface module) for ISDN connectivity at a maximum H.320 data rate of 128 Kbps. Complete the following steps to connect the ViewStation 128 to an ISDN network:

1. Connect the green-tipped RJ-45 cable to the green RJ-45 port on the back of the ViewStation 128.
2. Connect the opposite end of the green-tipped cable to an ISDN wall jack.

For more ISDN information, refer to *"Appendix D, ISDN Information,"* on page 203.

Once the interface is properly connected, the ViewStation 128 is ready to be configured for Ethernet LAN connectivity. See "*Connecting the ViewStation to an Ethernet LAN,"* on page 8.

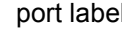
Connecting the ViewStation H.323 with V.35 to a Network

The ViewStation H.323 with V.35 uses a Polycom V.35 network interface module and has two HD-25 female ports (labeled 1 and 2) that are used to connect to your Data Communications Equipment (DCE).

Note Cable diagrams and pinout schematics are located in *V.35 Technical Information,"* on page 193.

Connecting the V.35 Network Interface Module to the ViewStation

Complete the following steps to connect the V.35 network interface module to the ViewStation:

1. Connect the green-tipped RJ-45 cable to the green RJ-45 port on the back of the ViewStation.
2. Insert the opposite end of the green-tipped RJ-45 cable to the port labeled  on the network interface module.

Connecting the V.35 Network Interface Module to the V.35 DCE

Complete the following steps to connect the V.35 network interface module to the V.35 DCE:

1. Connect the male HD-25 cable ends to ports 1 and 2 on the network interface module. If you want to connect only one cable, connect to port 1 on the interface module.

   Connector screws should be lightly snug, not tight.

2. Connect the remaining cable ends to the DCE V.35/RS-449 port and the DB-25/RS-366 dialing port, if used. If connecting one cable only, connect to the lowest ordered port on the DCE.

LED Activity on the V.35 Network Interface Module

The LEDs on the front of the V.35 network interface module indicate the connection status to the ViewStation.

When the ViewStation is powered on, the following light sequence occurs:

1. Both LEDs flash once to indicate that the LED is working properly.
2. The bottom amber LED glows solid to indicate that the ViewStation is communicating with the network interface module.
3. The top green LED glows solid to indicate that the ViewStation is communicating with the network.

The top green LED corresponds to port status, and the bottom amber LED corresponds to DCE clock status.

Once the interface is properly connected, the ViewStation H.323 with V.35 is ready to be configured for Ethernet LAN connectivity.

Connecting the ViewStation to an Ethernet LAN

All ViewStation models use the same configuration type for connecting the ViewStation to an Ethernet LAN. Complete the following steps to connect the ViewStation to an Ethernet LAN:

1. Connect the orange-tipped RJ-45 cable to the orange RJ-45 port labeled LAN on the back of the ViewStation H.323.
2. Connect the opposite end of the orange-tipped RJ-45 cable to an Ethernet LAN wall jack.
3. A green light appears on the orange RJ-45 port on the back of the ViewStation if the LAN wall jack is active.

Initial System Configuration

This section explains how to set up the ViewStation. Except where noted, the following section applies to all ViewStation models.

Setup Common to all ViewStations

The following instructions is a set of general setup procedures which cover all ViewStation models. Specific information that is unique to each ViewStation model is noted.

1. Power on the television monitor and ViewStation.
2. On the **Welcome** screen (shown in Figure 1-2) select the language used to display screens and information on the ViewStation.

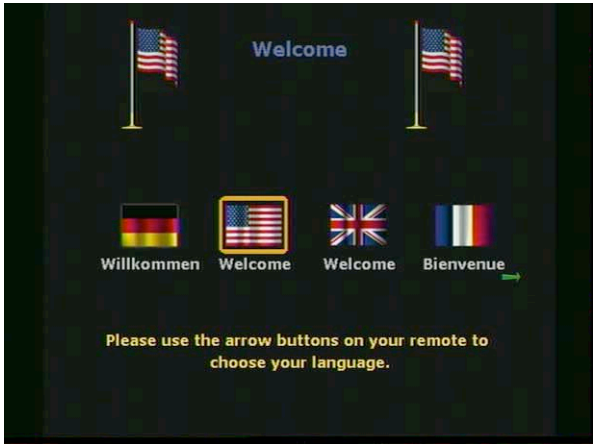


Figure 1-2. ViewStation Select Language Screen

3. There are two ViewStation **Welcome** screens. The first is the **ViewStation Select Language** screen (shown in Figure 1-2) Specify the desired country and language on this screen, and press the SELECT button on the remote control to continue.

   The main **Welcome** screen (shown in Figure 1-3) is a general greeting in the language previously selected.

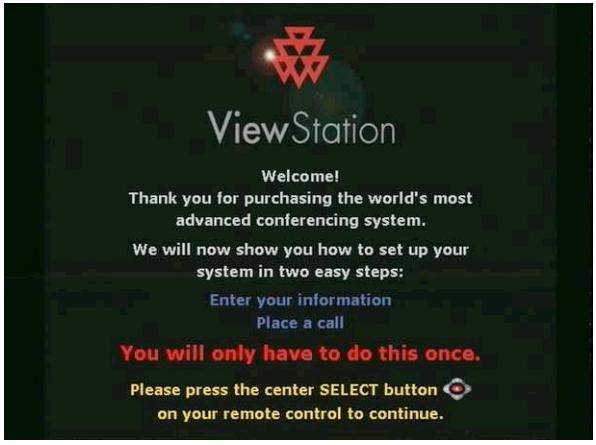

ViewStation
Welcome!
Thank you for purchasing the world's most advanced conferencing system.
We will now show you how to set up your system in two easy steps:
Enter your information
Place a call
You will only have to do this once.
Please press the center SELECT button on your remote control to continue.

Figure 1-3. ViewStation Main Welcome Screen

4. The next screen is the **How to Select Menu Items** screen shown in Figure 1-4. Take a moment to familiarize yourself with this screen. Press the SELECT button on the remote control to continue.

Figure 1-4. How to Select Menu Items Screen

5. The **System Name** screen is where you assign a unique name to the ViewStation.

   Highlight the gray text field (shown in Figure 1-5) and press the SELECT button on the remote control. You may enter up to 34 alphanumeric characters.

Highlight the **Return** icon and press the SELECT button on the remote control. Select the **Save** icon to continue.

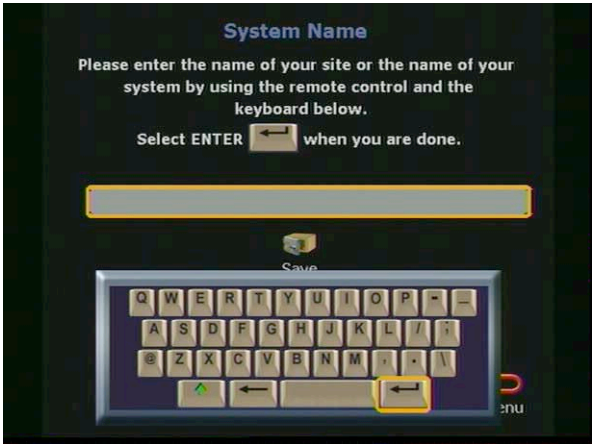

System Name
Please enter the name of your site or the name of your system by using the remote control and the keyboard below.
Select ENTER when you are done.
Save

Figure 1-5. ViewStation System Name Screen

6. Select the country where the ViewStation is located. This setting automatically configures ViewStation communications settings. Use the ARROW buttons to scroll through the list. Using the remote control, press the number that corresponds with the country name. For example, country names beginning with T, U, or V, press 8. The ViewStation menu goes to the first instance of the countries beginning with the letter T. Highlight the desired country, and press the SELECT button on the remote control.

Country:
Please select your country by using the arrow keys on your remote control:
Canada
France
Germany
United Kingdom
United States
Please press the center SELECT button to continue. Press the MENU button to go to the previous screen.
Menu

Figure 1-6. Select Country Screen

7. The **Call Preference** screen (Figures 1-7, 1-8, and 1-9) are used to specify the type of calling preference.

   ViewStation H.323 with Quad BRI and ViewStation 128.

   ISDN Video Calls (H.320):

   - **Checked:** Enables H.320 videoconferencing for the ViewStation.
   - **Not Checked:** Disables H.320 videoconferencing for the ViewStation.

   LAN/Internet Calls (H.323)

   - **Checked:** Enables H.323 videoconferencing for the ViewStation.
   - **Not Checked:** Disables the H.323 videoconferencing for the ViewStation.

   Note At least one calling preference must be selected.

   Display IP Dialing Extension: The IP Dialing Extension is used if a ViewStation uses the Global Address Book (GAB). For more information see *Global Address,"* on page 75.

   - **Checked:** The IP or E.164 Dialing Extension is displayed when an H.323 video call is initiated.

- **Not Checked:** The IP or E.164 Dialing Extension is not displayed when an H.323 video call is initiated.

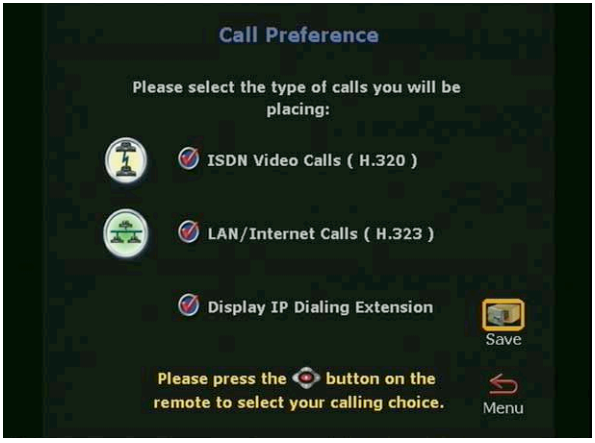

Call Preference
Please select the type of calls you will be placing:
ISDN Video Calls (H.320)
LAN/Internet Calls (H.323)
Display IP Dialing Extension
Save
Please press the button on the remote to select your calling choice.
Menu

Figure 1-7. Call Preference Screen For ISDN

8. **For all ViewStation H.323 with Avaya DCP.**

DCP Video Calls (H.320):

- **Checked:** Enables H.320 videoconferencing for the ViewStation.
- **Not Checked:** Disables H.320 videoconferencing for the ViewStation.

LAN/Internet Calls (H.323):

- **Checked:** Enables H.323 videoconferencing for the ViewStation.
- **Not Checked:** Disables the H.323 videoconferencing for the ViewStation.

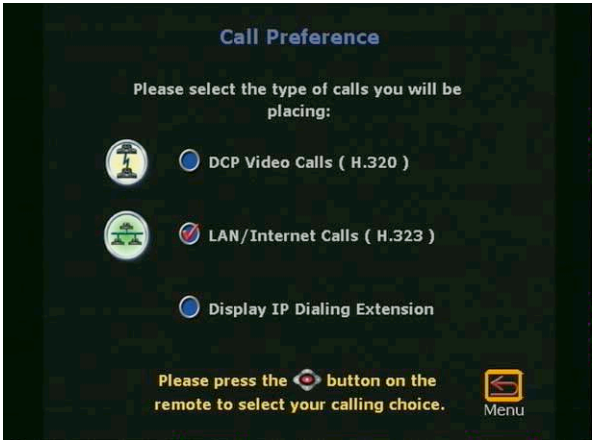

Call Preference
Please select the type of calls you will be placing:
DCP Video Calls (H.320)
LAN/Internet Calls (H.323)
Display IP Dialing Extension
Please press the button on the remote to select your calling choice.
Menu

Figure 1-8. DCP Call Preference Screen

Note At least one calling preference must be selected.

Display IP Dialing Extension: The IP Dialing Extension is used if a ViewStation uses the Global Address Book (GAB.) For more information see *Global Address,"* on page 75.

- **Checked:** The IP or E.164 Dialing Extension is displayed when an H.323 video call is initiated.
- **Not Checked:** The IP or E.164 Dialing Extension is not displayed when an H.323 video call is initiated.

For ViewStation H.323 with V.35:

V.35 Video Calls:

- **Checked:** Enables V.35 videoconferencing for the ViewStation.
- **Not Checked:** Disables V.35 videoconferencing for the ViewStation.

LAN/Internet Calls (H.323)

- **Checked:** Enables H.323 videoconferencing for the ViewStation.
- **Not Checked:** Disables the H.323 videoconferencing for the ViewStation.

Note One calling preference must be selected.

Display IP Dialing Extension: The IP Dialing Extension is used if a ViewStation uses the Global Address Book (GAB.) For more information see *Global Address,"* on page 75.

- **Checked:** The IP or E.164 Dialing Extension is displayed when an H.323 video call is initiated.
- **Not Checked:** The IP or E.164 Dialing Extension is not displayed when an H.323 video call is initiated.

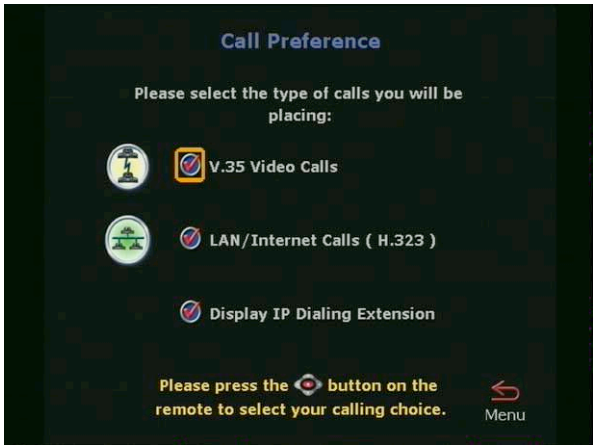

Call Preference
Please select the type of calls you will be placing:
V.35 Video Calls
LAN/Internet Calls (H.323)
Display IP Dialing Extension
Please press the button on the remote to select your calling choice.
Menu

Figure 1-9. V.35 Call Preference Screen

9. The **H.323 Setup** screen (shown in Figure 1-10) is used to specify the H.323 name and extension. This screen appears only when H.323 is enabled.

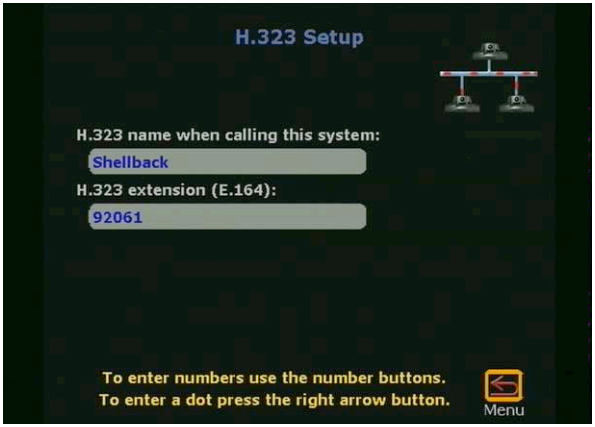


Figure 1-10. H.323 Setup Screen

An **Auto H.323 Dialing** check box appears below the H.323 extension (E.164) when two or more dialing protocols are enabled. Complete the following steps to enter information on the **H.323 Setup** screen.

1. Enter a name in the **H.323 name when calling this system** text box. Select a name which is easy to remember, such as the name of a conference room.
2. Enter the H.323 extension (E.164). E.164 is a naming scheme based on the ViewStation's serial number and MUST be unique to each ViewStation system.
3. Uncheck the **Auto H.323 Dialing** check box if displayed.

10. The **Gatekeeper** screen (shown in Figure 1-11) provides terminal gateway registration, address resolutions, bandwidth, and admission control. It is commonly used for point-to-point *Internet* video calls.

    A gatekeeper is not required for point-to-point *Intranet* video calls. Select one of the following options for Gatekeeper:

    - **Off :** Gatekeeper is not used.
    - **Specify:** Enter the Gatekeeper IP address.
    - **Auto:** The ViewStation automatically searches for a Gatekeeper on the LAN. If no Gatekeeper is used, the ViewStation continues to search for a gatekeeper until this

setting is changed. If the LAN has more than one gatekeeper, specify the correct gatekeeper manually.

Figure 1-11. ViewStation H.323 Gatekeeper Screen

The following configuration screens are for specific ViewStation models:

- For ViewStation H.323 with V.35, continue to step 11.
- For ViewStation 128, skip to step 12.
- For ViewStation H.323 with Quad BRI, skip to step 12.
- For ViewStation MP with Quad BRI, skip to step 12.
- For ViewStation H.323 with Avaya DCP, skip to step 13.
- For ViewStation MP with Avaya DCP, skip to step 13.
- For ViewStation H.323, skip to Step 17.

11. The **Video Network** screen (shown in Figure 1-12) is displayed for ViewStations with a V.35 network interface module.

    RS-366 Dialing:

    - **Checked:** Enable the RS-366 dialing option if a call is made from the ViewStation through the DCE connection to the far site video communications system.
    - **Not checked:** Disable RS-366 dialing option if:
        - The DCE is used to dial the video call.
        - A dedicated connection is used to connect the ViewStation to the far site.

V.35 Ports Used:

- **1:** For 1-channel calls when dialing through the V.35, or when the ViewStation is in non-dialed mode.
- **1-2:** For 2 X 56 Kbps or 2 X 64 Kbps calls when dialing through the V.35.

Figure 1-12. V.35 Video Network Screen

Dialing Protocol: RS-366 is displayed as the dialing protocol if the **RS-366 Dialing** option is enabled. This field cannot be changed.

Broadcast Mode: The ViewStation V.35 supports H.331 broadcast mode for broadcast transmissions over satellite. In H.331 broadcast mode, the ViewStation sends and receives audio and video without handshaking with either the far site ViewStation or H.331-compatible video communications systems. One ViewStation can send video and audio to many ViewStations or other H.331-compatible systems, as in a large satellite network.

- **Checked:** Enables broadcast mode. When checked, the **Broadcast Mode Setup** icon appears.
- **Not checked:** Disables broadcast mode. When not checked the **Broadcast Mode Setup** icon is not present.

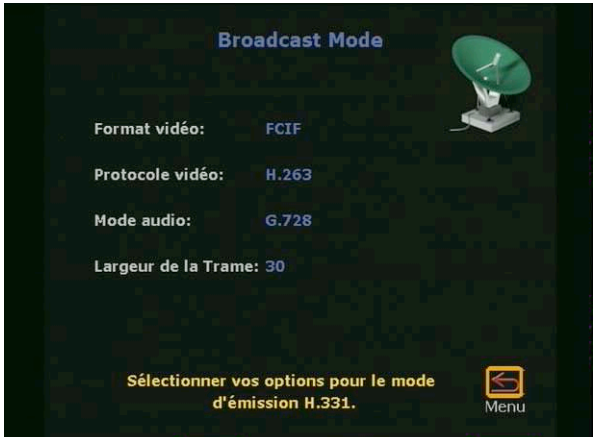


Figure 1-13. Broadcast Mode Screen

Broadcast Mode: The **Broadcast Mode** screen (shown in Figure 1-13) is used to configure the V.35 broadcast mode properties:

- **Video Format:**

  QCIF: To transmit QCIF (Quarter Common Interchange Format) 176 X 144 resolution, select **QCIF**.

  FCIF: To transmit FCIF (Full Common Interchange Format) 352 X 288 resolution, select **FCIF**.

- **Video Protocol**:

  H.261: To transmit video using the H.261 standard, select **H.261**.

  H.263: To transmit video using the H.263 enhanced video algorithm, select **H.263**. If the far-site systems support H.263, your system receives H.263. If the far site systems support H.261, your ViewStation adjusts to support H.261 video.

- **Audio Mode:** The audio mode can be adjusted to compensate for distorted audio due to high packet loss. Select the preferred audio protocol for transmitting audio:

  G.728 (Default)

  G.711u

  G.711A

  G.722-56

G.722-48

Off

- **Frame Rate:** The frame rate is the number of frames per second (fps) transmitted by the ViewStation to the far site. This is adjustable to compensate for distorted video due to high packet loss. Select the preferred video frame rate for the broadcast transmission in frames per second or fps:
  - **30 fps** (Default)
  - **15 fps**
  - **10 fps**
  - **7.5 fps**

Set broadcast configuration parameters to accommodate the lowest common denominator of the video communication systems that receive the video and audio broadcasts. For example, if one video communication system participating in the video supports H.261 only, set the video protocol to H.261 to ensure that all systems are able to participate.

Figure 1-14. Advanced Dialing Screen

If RS-366 Dialing is enabled on the **Video Network** screen, the **Advanced V.35** screen is displayed.

- **Prefix/Suffix:** Use the **Advanced V.35** screen (shown if Figure 1-14) to set the dialing prefixes and suffixes. Dialing prefixes are numbers and characters that are sent to the DCE equipment *before* the dialed number is sent. Dialing

suffixes are numbers and characters that are sent to the DCE equipment *after* the dialed number is sent.

Use prefixes and suffixes to set the DCE speed used to dial a call.

Note Prefixes and suffixes are a function of the DCE. See your *DCE User Documentation* for information about setting dialing profiles to the DCE specific equipment.

- **Calling Profiles:** Calling profiles are configured on the **Advanced V.35** screen. To select and change the profiles, highlight the **Calling Profile** field and select the specific equipment.
- **Dialing Speeds:** If RS-366 dialing is enabled on the **Video Network** screen, the **Dialing Speeds** screen is displayed.

Figure 1-15. Dialing Speeds Screen

On this screen, specify the dialing speeds available to users when placing video calls. The default speeds are:

- 2 X 64 Kbps
- 256 Kbps
- 384 Kbps
- 512 Kbps

- To add or remove speeds, scroll though the data rates and press the SELECT button on the remote control to choose

the preferred dialing speeds. A red check is displayed when a dialing speed is selected.

12. On the **ISDN Video Numbers** screen (shown in Figure 1-16), complete the following:
    - Enter your local area or STD code.
    - Enter the ISDN numbers assigned to your ViewStation. The ISDN service provider should have provided this number when your ISDN line was installed.

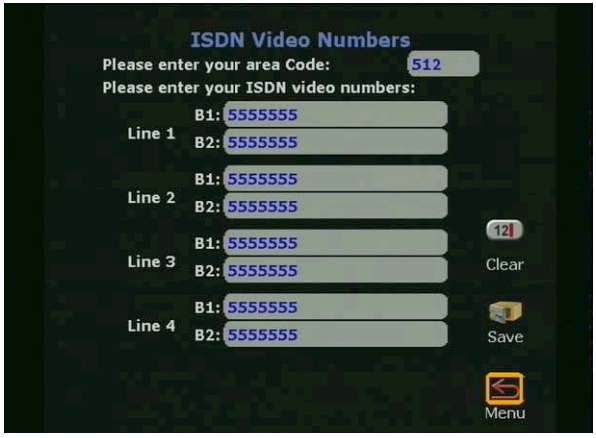


Figure 1-16. ISDN Video Numbers Screen

13. DCP Video Numbers
    - On the **DCP Video Numbers** screen (shown in Figure 1-17), enter the area or STD code.
    - Enter the video numbers assigned to the ViewStation DCP. If the video numbers are not known, contact a Definity administrator.

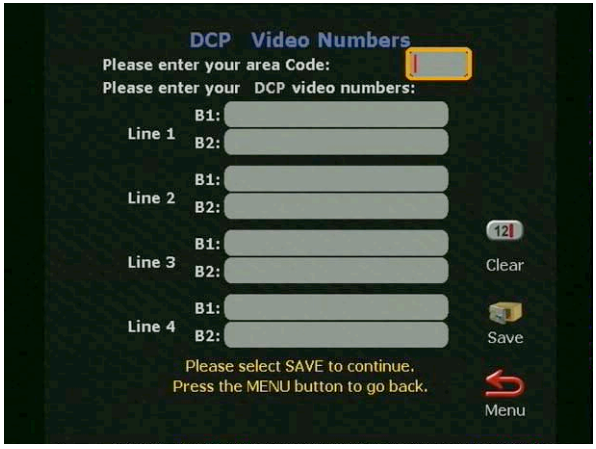


Figure 1-17. DCP Video Numbers Screen

14. Auto Detect SPIDs:

    - On the **Auto Detect SPIDs** screen (shown in Figure 1-18), enter the Service Profile ID (SPIDs) numbers for the ViewStation. If connected to an internal phone system (PBX) or if the ViewStation is outside North America, a SPID may not be required.

    OR

    - Select the START icon for the ViewStation to automatically detect SPIDs.

Note If the ViewStation is unable to find the SPIDs, check the network connection and verify that the ISDN have been entered correctly.

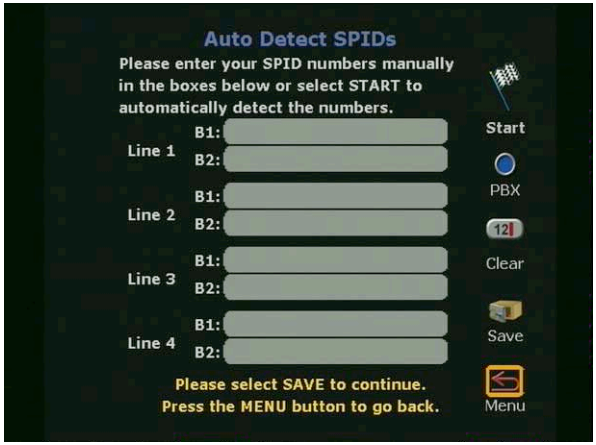


Figure 1-18. Auto Detect SPIDs Screen

To manually enter the SPID numbers for the ViewStation as shown in Figure 1-18, highlight each line and channel, and press the SELECT button on the remote control. Enter the SPID numbers accordingly.

15. If **PBX** is selected on the **Auto Detect SPIDs** screen, the following screen (shown in Figure 1-19) requires the number used to obtain an outside line.

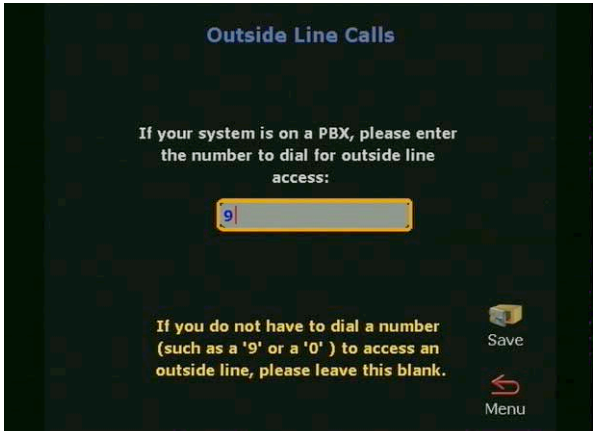

Outside Line Calls
If your system is on a PBX, please enter the number to dial for outside line access:
9
If you do not have to dial a number (such as a '9' or a '0') to access an outside line, please leave this blank.
Save
Menu

Figure 1-19. Outside Line Calls Screen

16. ISDN Switch Protocol:
    Select the ISDN switch protocol according to the ISDN switch type used with the ISDN network, as shown in Figure 1-20.

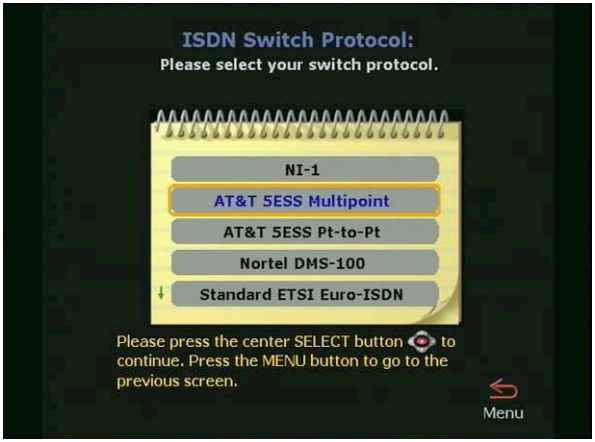

ISDN Switch Protocol:
Please select your switch protocol.
NI-1
AT&T 5ESS Multipoint
AT&T 5ESS Pt-to-Pt
Nortel DMS-100
Standard ETSI Euro-ISDN
Please press the center SELECT button to continue. Press the MENU button to go to the previous screen.
Menu

Figure 1-20. ISDN Switch Protocol Screen

17. The **Telephone Numbers** screen shown in Figure 1-21 is where the telephone number for the ViewStation (if used) is entered. An additional field is provided for the telephone where the ViewStation is used.

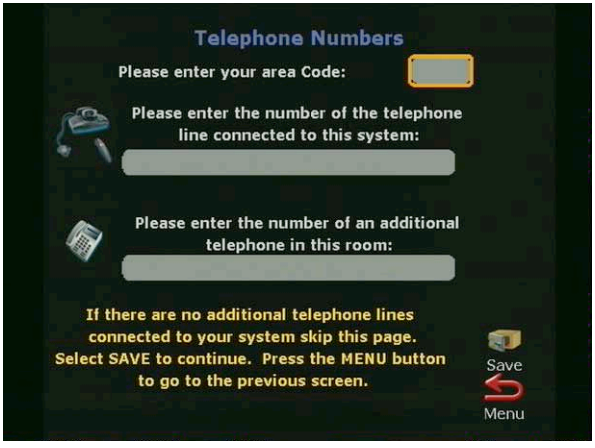

Telephone Numbers
Please enter your area Code:
Please enter the number of the telephone line connected to this system:
Please enter the number of an additional telephone in this room:
If there are no additional telephone lines connected to your system skip this page. Select SAVE to continue. Press the MENU button to go to the previous screen.
Save
Menu

Figure 1-21. Telephone Numbers Screen

When the **Main Calling** screen is displayed as shown in Figure 1-22, the ViewStation setup is complete.

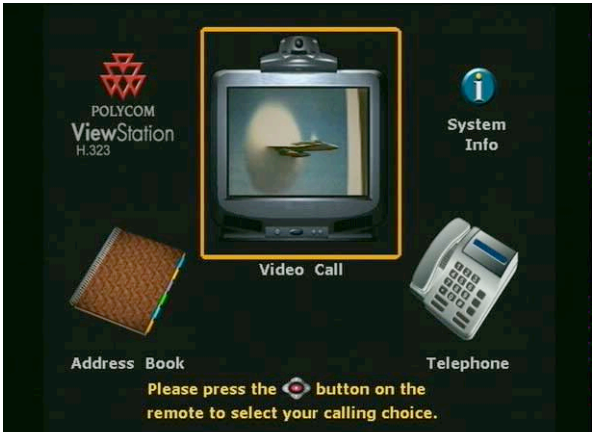


Figure 1-22. Main Calling Screen

At the top left of the **Main Calling** screen is the ViewStation type indicator, which is displayed below the Polycom logo. This indicates the network interface module (if any) that is configured with the ViewStation.

Network Status Indicators

Each time the ViewStation is powered on, a set of network status indicators (network icons) are displayed below the **Video Call** icon on the **Main Calling** screen. The **Network** icon flashes a yellow numbered box while the ViewStation is validating each network line or is waiting for the DHCP server (if used) to assign it an IP address. If the ViewStation uses a static or fixed IP address, the ViewStation verifies the IP is not in use.

Icon	Meaning
Green Up Arrow	Network line is connected. The ViewStation is ready to place a video call.

Yellow Box	The ViewStation is checking the status of the network line.
Red Down Arrow	Network line failed to validate: This may be because the network cable is not connected to the network, or is not functioning properly. Check the cable connection, contact your Network Manager or see *Network and Communications,"* on page 182.

Using the ViewStation Help

To access the ViewStation **Help** screen, press the INFO button on the remote control. If your organization is not using the Polycom Global Management System, pressing the INFO button on the remote control takes you directly to the **Help** screen. If your organization is using the Polycom Global Management System, two icons appear on the screen. The first icon is the **Help** screen (noted below). The second icon is the Global Management System **Technical Support** icon and appears only when GMS is used.

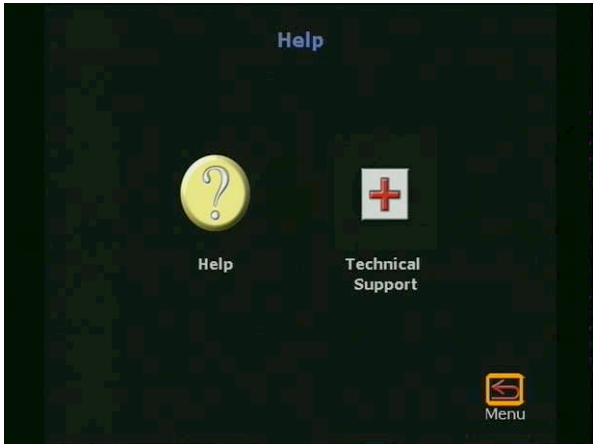


Figure 1-23. Help Screen

Using ViewStation Help

To access the **Help** screen, highlight the INFO button and press the SELECT button on the remote control.

The **Help** screen is used to obtain information about:

- Navigation with the remote control
- Placing a video call
- Connecting to a PC
- Using PowerPoint to display slides
- Making camera selections
- Using voice tracking
- Setting camera presets

- Sending telephone touch tones.

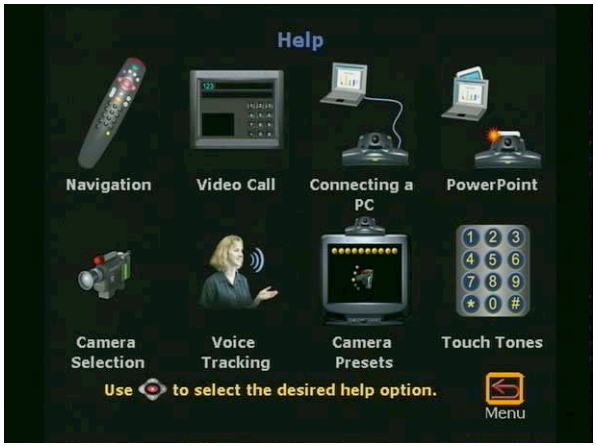


Figure 1-24. Help Screen

To choose a topic on the **Help** screen, highlight the desired icon and press the SELECT button on the remote control.

Technical Support

The **Technical Support** icon (shown in Figure 1-23) is visible only when the ViewStation is using the Polycom Global Management System™. For more information on how to setup the Polycom Global Management System, see *Global Management,"* on page 84.

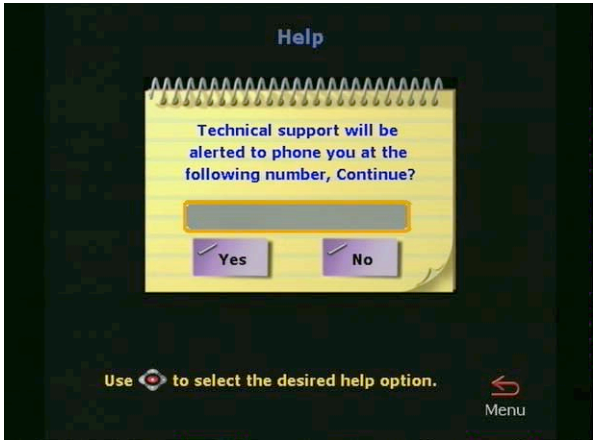

Help
Technical support will be alerted to phone you at the following number, Continue?
Yes
No
Use to select the desired help option.
Menu

Figure 1-25. Technical Support Help Screen

To obtain Technical Support from the Polycom Global Management System, highlight the **Technical Support** icon and press the SELECT button on the remote control. A dialog box appears (Figure 1-25) asking you to enter a phone number. In order to provide rapid assistance, please include the area code with your phone number.

Once your phone number has been entered, a confirmation screen appears. This screen also displays a phone number you can use to contact technical support by voice directly.

2

Optional Configurations

This chapter contains user and administrative setup information. Except where noted, this applies to all ViewStation models.

User Setup

The **User Setup** screen (**System Info > User Setup**) serves as a quick configuration tool allowing the ViewStation administrator or LAN manager to set basic options for the ViewStation as shown in Figure 2-1.

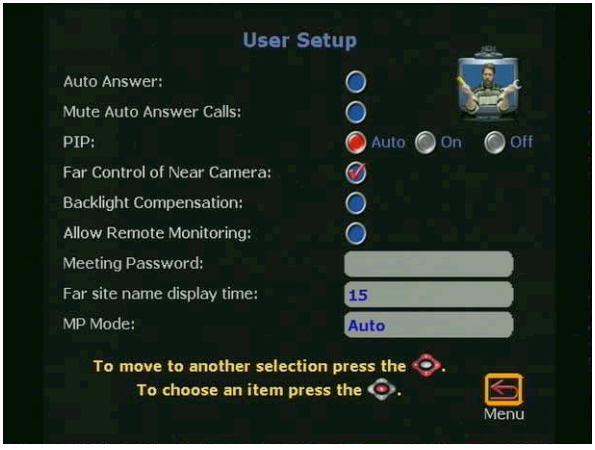


Figure 2-1. User Setup Screen

Auto Answer: The **Auto Answer** option allows the ViewStation to automatically answer incoming video calls.

- **Checked:** The ViewStation automatically answers incoming video calls.
- **Not Checked:** Incoming calls ring until the call is manually answered or the far site disconnects.

Mute Auto Answer Calls: This option turns the microphone pod off and prevents the far site from hearing the near site when the ViewStation automatically answers incoming video calls.

- **Checked:** The ViewStation mutes near site audio for incoming video calls when the ViewStation automatically answers incoming video calls.
- **Not Checked:** The ViewStation sends audio to the far site as normal.

  When the ViewStation is muted, both sites are notified with a microphone image located in the lower left side of the main screen. A red light illuminates on the microphone pod when the near site is muted.

PiP or Picture-in-Picture: The PiP feature allows the near site to adjust near camera views while in a videoconference. In this configuration, the **Camera** icon in the top right corner disappears when the remote control is placed on a flat surface.

- **Auto:** The ViewStation shows a PiP window when the call is first connected and when the remote control is not resting on a flat surface.
- **On:** The ViewStation shows a PiP window that remains in the lower right corner until the video call is completed.
- **Off:** The ViewStation does not show a PiP window.

Far Control of Near Camera: The **Far Control of Near Camera** option allows users at the far site to control the camera at the near site.

- **Checked:** A user on the far site may control the framing or angle of the camera on the near site by pressing the FAR button on the remote control.
- **Not Checked:** A user cannot change the framing and angle of the camera. When a far site user presses the FAR or ZOOM button on the remote control, any attempts to change the current orientation of the camera are ignored.

Backlight Compensation: The backlight compensation is used in conference rooms where the subject appears darker than the background. Use backlight compensation if the meeting participants appear to be in shadow.

- **Checked:** The camera automatically adjusts for a light background.
- **Not Checked:** Uncheck the backlight compensation if moderate lighting is used for the ViewStation.

Allow Remote Monitoring: Remote monitoring allows a user to remotely view a conference room prior to a scheduled meeting using the ViewStation Web interface. See *"Using the ViewStation with a PC"* on page 133.

- **Checked:** The ViewStation sends images every 10 seconds to the ViewStation Web page.
- **Not Checked:** The ViewStation does not send any images.

Meeting Password: The meeting password is used to grant or restrict access to the non-administrative functions of the ViewStation's Web interface. See *"Using the ViewStation Web Interface"* on page 139.

- **Text field empty:** No password is required.
- **Text field populated:** When the Meeting Password text field is populated with a password, that password is used to grant or restrict access the non-administrative features of the ViewStation web interface.

Far site name display time: The far site name display time displays the name of the far site for a defined number of seconds.

- **15 seconds:** (Default) The far site name is displayed for 15 seconds.
- **Blank:** The far site name is displayed until the call is ended.

MP Mode: (MP-enabled ViewStations only.) The MP mode sets the viewing mode for multi-point video calls into one of the following options:

- **Auto:** The ViewStation automatically switches between discussion and presentation modes.
- **Discussion:** This mode is also called the continuous presence. Each site remains on the screen in a tiled arrangement.
- **Presentation:** The main presenter remains on the screen.
- **Full Screen:** Whoever is speaking is viewed in full screen. When a new endpoint speaks, that endpoint appears full screen.

Admin Setup

The **Admin Setup** screen (**System Info > Admin Setup**) is used to access the advanced configuration features of the ViewStation.

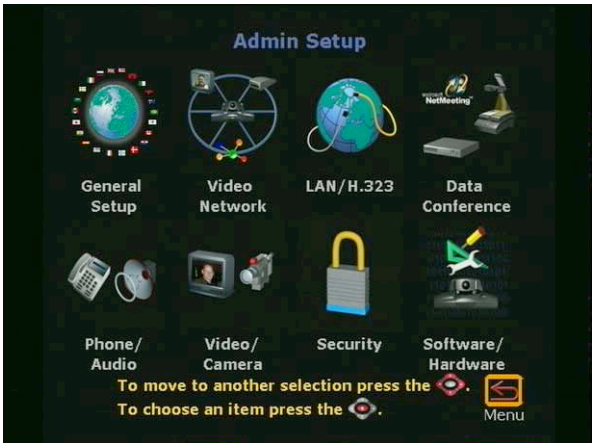


Figure 2-2. Admin Setup Screen

The following table lists which icons are available for each ViewStation model:

Icon Name	ViewStation Model	Location
General Setup	All	**System Info > Admin Setup > General Setup**
Video Network	BRI, DCP, V.35, 128	**System Info > Admin Setup > Video Network**
LAN / H.323	All	**System Info > Admin Setup > LAN / H.323**
Data Conference	All	**System Info > Admin Setup > Data Conference**
Phone / Audio	All	**System Info > Admin Setup > Phone / Audio**
Video / Camera	All	**System Info > Admin Setup > Video / Camera**

Icon Name	ViewStation Model	Location
Security	All	**System Info > Admin Setup > Security**
Software / Hardware	All	**System Info > Admin Setup > Software / Hardware**

General Setup

The **General Setup** screen (**System Info > Admin Setup > General Setup**) is used to access the advanced configuration features of the ViewStation not contained in the **User Setup** screen. The **General Setup** screen (shown in Figure 2-3) has the following seven user-configurable fields:

- **Country:** Sets the country where the ViewStation is used
- **Language:** Sets one of the languages used for the ViewStation
- **System Name:** Sets the name displayed in a call for the ViewStation
- **Auto Answer:** Sets the auto-answer feature when the ViewStation receives an incoming call
- **Allow Dialing:** Permits or denies the ability to place a video call from the ViewStation
- **Allow User Setup:** Permits or denies access to the **User Setup** screen
- **Maximum Time in a Call:** Sets the maximum time for a video call

Figure 2-3. General Setup Screen

Country: The **Country** field of the **General Setup** screen (shown in Figure 2-3) allows you to specify country specific calling parameters for your location. Click the **Country** field to access the **Country Setup** screen (Figure 2-4).

Figure 2-4. Country Setup Screen

The fields in the **Country Setup** screen allow you to set local calling parameters:

- **Country:** To select a country, highlight the blue country text field and press the SELECT button on the remote control. Scroll down the list of countries and highlight

the desired country. The country code appears with the corresponding country.

- **Area Code Required:**
  - **Checked:** The ViewStation automatically adds the area code to the ISDN or DCP dialing prefix of calls placed from the ViewStation.
  - **Not Checked:** The ViewStation dials all calls as if the calls were placed within the local area code.
- **Phone International Access:** The international prefix is 011 for North America and 00 for European countries. The default depends on the country. Highlight the blue text field on the **Phone International Access** field. Enter the assigned prefix to make international calls.

When complete, highlight the **Menu** icon and press the SELECT button on the remote control.

Language: The **Language** field selects the language used for the ViewStation (see *"Setup Common to all ViewStations"* on page 9.) Highlight the desired flag associated with a language and press the SELECT button on the remote control.

System Name: The system name is the name assigned by the user to identify the ViewStation. This can be any combination of alphanumeric characters up to 34 characters in length.

Auto Answer: The **Auto Answer** option allows the ViewStation to automatically answer incoming video calls.

- **Checked:** The ViewStation automatically answers incoming video calls.
- **Not Checked:** Incoming calls ring until they are manually answered or the far site disconnects the call.

Allow Dialing: The **Allow Dialing** option enables or disables dialing and access to the address book on the ViewStation.

- **Checked:** The ViewStation allows dialing and access to the address book.
- **Not Checked:** The ViewStation prevents dialing and denies access to the address book.

Figure 2-5 shows the message that is displayed when the **Allow Dialing** feature is not checked.

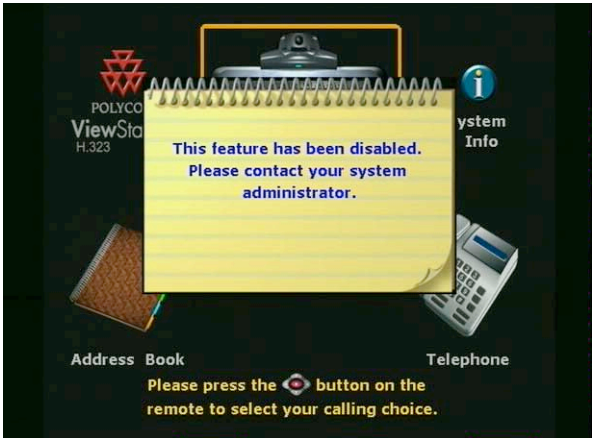


Figure 2-5. Allow Dialing Disabled Screen

Allow User Setup: The **Allow User Setup** option enables or disables users from changing the **User Setup** by removing the icon from the **System Information** screen as shown in Figure 2-6. This is generally used when the user setup policy has been defined by the LAN manager or the ViewStation administrator.

- **Checked:** Allows changes to the **User Setup** settings.
- **Not Checked:** Prevents changes to the **User Setup** settings.

Figure 2-6. Allow User Setup Disabled on System Information Screen

Maximum Time in Call: The default time for the maximum time in a call is 480 minutes. When the maximum time in a call is met, the ViewStation displays a yellow dialog box stating that the length of the call has reached the set time and asks if you want to continue the call. If the call is extended, the time of the extended call is equal to the set maximum time in a call.

Video Network

The **Video Network** is used to configure ISDN, DCP, MP, and V.35 configurations for the ViewStation.

ViewStation H.323 with Quad BRI

The **Network Setup** screen (**System Info > Admin Setup > Video Network**) shown in Figure 2-7 provides four icons, which:

- Configure IMUX properties
- Configure ISDN Video Network properties
- Set Call Preferences
- Set Multi-Point Preferences (MP enabled systems only)

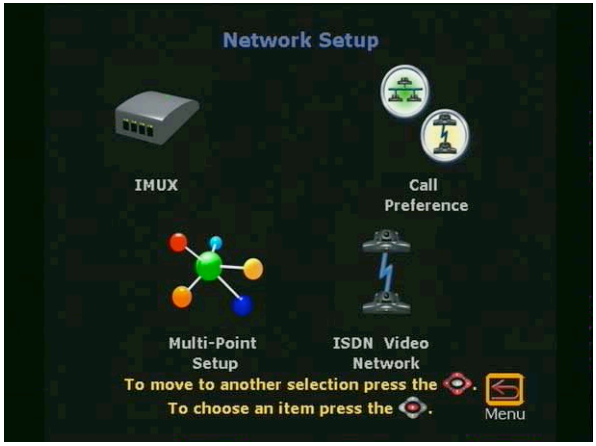


Figure 2-7. Video Network Screen (MP Enabled ViewStations Only)

IMUX (Inverse Multiplexer):

On the **IMUX** screen (**System Info > Admin Setup > Video Network > IMUX**) the five icons as shown in Figure 2-8 are:

- **Numbers:** Sets ISDN video numbers

- **SPIDs:** Sets the Service Profile IDs. SPID numbers are assigned to every terminal device by the ISDN provider. This is generally used in North America only
- **Audio Quality:** Adjusts the audio quality of a video call
- **Advanced Dialing:** Defines how a channel is dialed
- **Dialing Speeds:** Defines dialing speed available when a call is placed

Figure 2-8. Inverse Multiplexer Information Screen

Numbers

The **Numbers** screen (**System Info > Admin Setup > Video Network > IMUX > Numbers**) allows the ViewStation administrator or the LAN manager to enter the STD or area code and the ISDN Video numbers for each ISDN line.

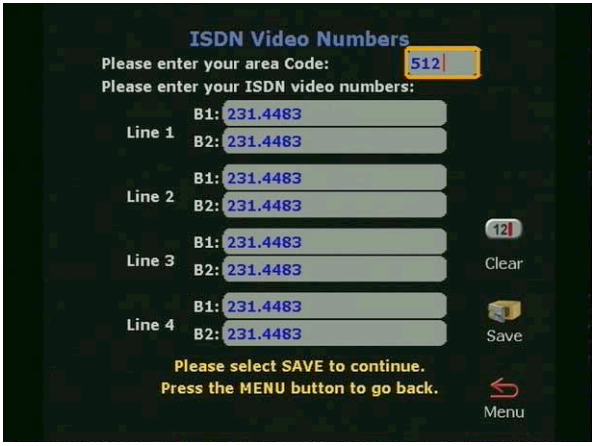


Figure 2-9. ISDN Video Numbers Screen

1. Enter the STD or area code and press the down arrow on the remote control to continue to the next line.
2. Enter the ISDN phone number used for each line.
3. When complete, highlight the **Save** icon and press the SELECT button on the remote control.

Service Profile Identifier

The **Service Profile Identifier** screen (**System Info > Admin Setup > Video Network > IMUX > SPIDS**) or SPIDs appears only if United States or Canada is selected as the country. If the ViewStation is connected to an internal phone system (PBX), a SPID may not need to be entered.

Note If the ViewStation is unable to find the SPIDs, check the network connection and verify that the ISDN numbers have been entered correctly.

- Enter the SPID numbers provided by the ISDN service provider.
- If the ViewStation is connected to a PBX, select the **PBX** icon. In some cases you may not need to locate SPIDs.
- To auto-detect SPID numbers, highlight the **Start** icon and press the SELECT button on the remote control.

Note If this process is canceled, the ViewStation reboots and the entire setup procedure must be redone.

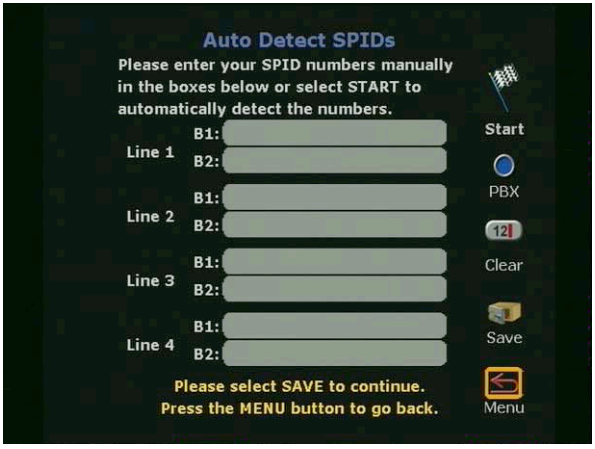


Figure 2-10. Auto Detect SPIDs Screen

Audio Quality

The **Audio Quality Preference** screen (**System Info > Admin Setup > Video Network > IMUX > Audio Quality**) allows the selection of an audio protocol. G.722 audio delivers a higher quality of audio than G.728 and uses 48 Kbps of the call bandwidth. G.728 delivers telephone quality audio and only uses 16 Kbps of the call bandwidth. G.728 is generally used for lower data rates.

To set the audio protocol, use the **+** and **-** zoom buttons on the remote control to move the slider.

Note Changing the audio quality preferences during a call can be done only while in an H.320 call. No changes can be made while in an H.323 call.

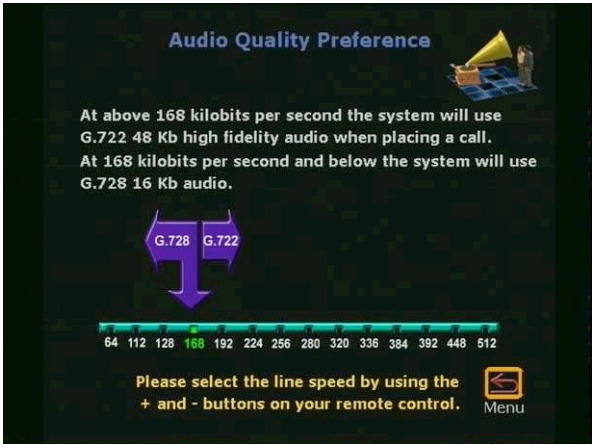

Audio Quality Preference
At above 168 kilobits per second the system will use G.722 48 Kb high fidelity audio when placing a call.
At 168 kilobits per second and below the system will use G.728 16 Kb audio.
G.728
G.722
64 112 128 168 192 224 256 280 320 336 384 392 448 512
Please select the line speed by using the + and - buttons on your remote control.
Menu

Figure 2-11. Audio Quality Screen

Advanced Dialing

On the **Advanced Dialing** screen (**System Info > Admin Setup > Video Network > IMUX > Advanced Dialing**) you can define how each ISDN channel is dialed. By default, channels are dialed in parallel.

- **Dial channels in parallel:** When this option is selected, the ViewStation dials all ISDN channels simultaneously.
- **Dial channels one at a time:** When selected, the ViewStation dials each ISDN channel one at a time until all the channels are connected. This feature is used to overcome local network problems.

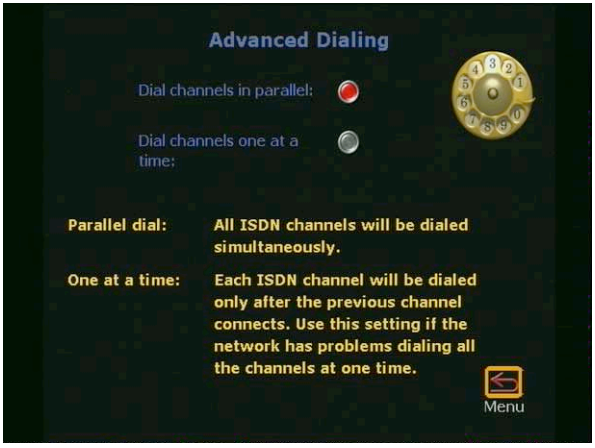

Advanced Dialing
Dial channels in parallel:
Dial channels one at a time:
Parallel dial:
All ISDN channels will be dialed simultaneously.
One at a time:
Each ISDN channel will be dialed only after the previous channel connects. Use this setting if the network has problems dialing all the channels at one time.
Menu

Figure 2-12. Advanced Dialing Screen

Dialing Speeds

The **Dialing Speeds** screen (**System Info > Admin Setup > Video Network > IMUX > Dialing Speeds**) specifies the dialing speeds that are available when a call is placed.

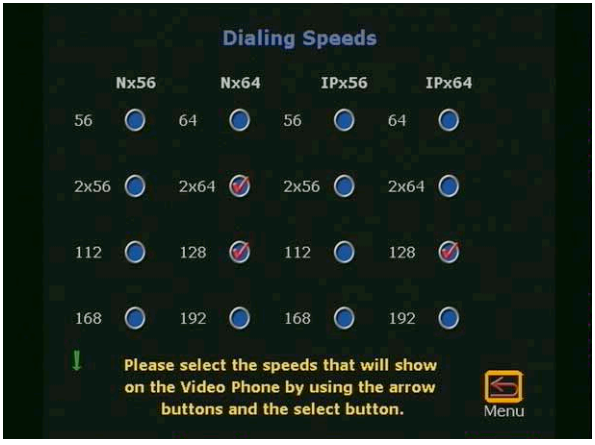


Figure 2-13. Dialing Speeds Screen

Highlight the circle to the right of a speed and press the SELECT button on the remote control to select that speed. A red check mark appears on the **Dialing Speeds** screen when a speed is selected.

ISDN Video Network

The **ISDN Video Network** screen (**System Info > Admin Setup > Video Network > ISDN Video Network**) contains information entered during system setup. The five user-configurable fields are:

Country Code: Choose the country code associated with the country where the ViewStation is used.

Area Code: Choose the area code or STD code where the ViewStation is used.

Number A: Enter the primary ISDN number assigned to the ViewStation.

Number B: Enter the secondary ISDN number assigned to the ViewStation.

ISDN Switch Protocol: Select the appropriate ISDN switch protocols. Contact the ISDN provider to determine the ISDN switch protocol.

ISDN Dialing Prefix: The ISDN dialing prefix is used to access an outside line if the ViewStation is connected to a PBX.

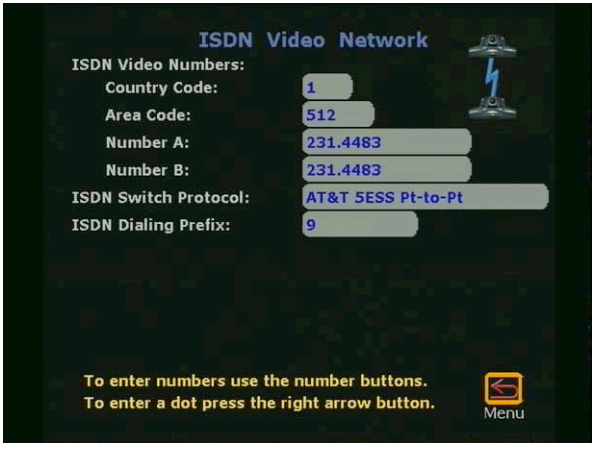


Figure 2-14. ISDN Video Network

Call Preference

The **Call Preference** screen (**System Info > Admin Setup > Video Network > Call Preference**) shown in Figure 2-15 determines how a video call is made. The two types of calls made are:

- ISDN Video Calls (H.320)
- LAN/Internet Calls (H.323)

ISDN Video Calls (H.320):

- **Checked:** Enables ISDN videoconferencing on the ViewStation.
- **Not Checked:** Disables ISDN videoconferencing ability on the ViewStation.

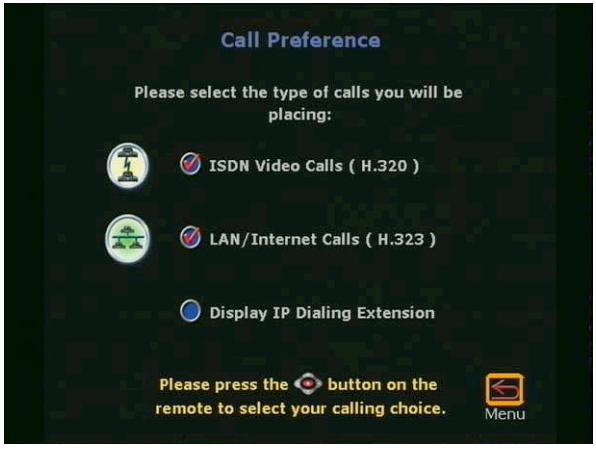

Call Preference
Please select the type of calls you will be placing:
ISDN Video Calls (H.320)
LAN/Internet Calls (H.323)
Display IP Dialing Extension
Please press the button on the remote to select your calling choice.
Menu

Figure 2-15. Call Preference Screen

LAN/Internet Calls (H.323):

- **Checked:** Enables H.323 videoconferencing on the ViewStation.
- **Not Checked:** Disables H.323 videoconferencing on the ViewStation.
- **Display IP Dialing Extension:** The IP dialing extension is used if a ViewStation uses the Global Address Book (GAB).

  Checked: The E.164 dialing extension is displayed when a video call is initiated in H.323 calls.

Not Checked: The E.164 dialing extension is not displayed when a video call is initiated in H.323 calls.

Multi-Point Setup (MP Enabled ViewStations)

The **Multi-Point** setup screen determines which mode the multi-point feature is used. The modes are:

- **Auto:** The ViewStation automatically switches between discussion and presentation mode.
- **Discussion:** This mode is also called the continuous presence. Each site remains on the screen in a tiled arrangement.
- **Presentation:** The main presenter remains on the screen while each end point switches on and off.
- **Full Screen:** Whoever is speaking is viewed in full screen. When a new endpoint speaks, that endpoint appears full screen.

ViewStation H.323 with Avaya DCP

The **Network Setup** screen (**System Info > Admin Setup > Video Network**) shown in Figure 2-16 provides four icons which:

- Configure IMUX properties
- Configure DCP Video Network properties
- Set Call Preferences
- Set Multi-Point Setup preferences (MP systems only).

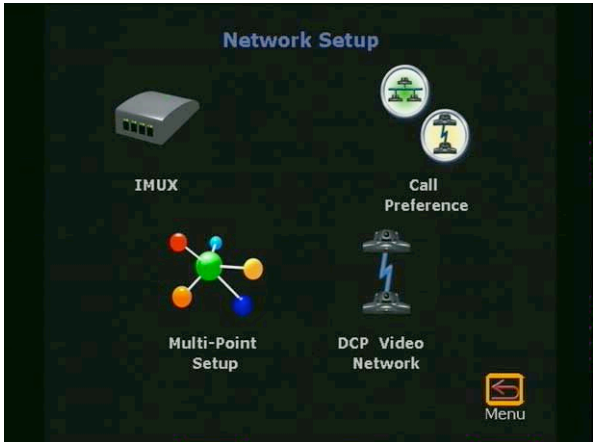


Figure 2-16. Network Setup Screen (MP Enabled ViewStations Only)

IMUX (Inverse Multiplexer):

On the **IMUX** screen (**System Info > Admin Setup > Video Network > IMUX**), the four icons as shown in Figure 2-17 are:

- **Numbers:** Sets DCP video numbers
- **Audio Quality:** Adjusts the audio quality of a video call
- **Advanced Dialing:** Defines how a channel is dialed
- **Dialing Speeds:** Defines dialing speed available when a call is placed.

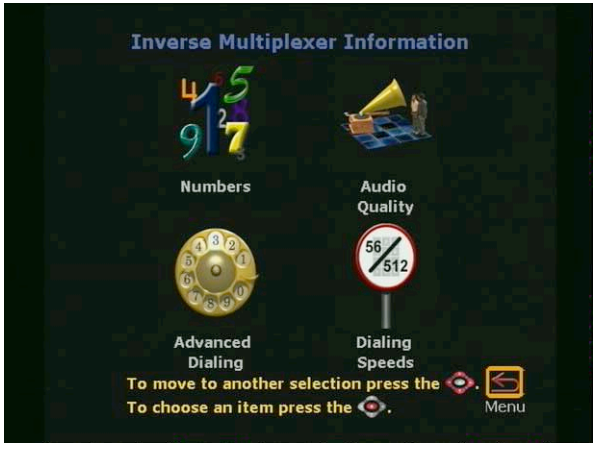


Figure 2-17. Inverse Multiplexer Information Screen

Numbers

The **Numbers** screen (**System Info > Admin Setup > Video Network > IMUX > Numbers**) allows the ViewStation administrator or the LAN manager to enter the STD or area code and the DCP video numbers for each DCP line.

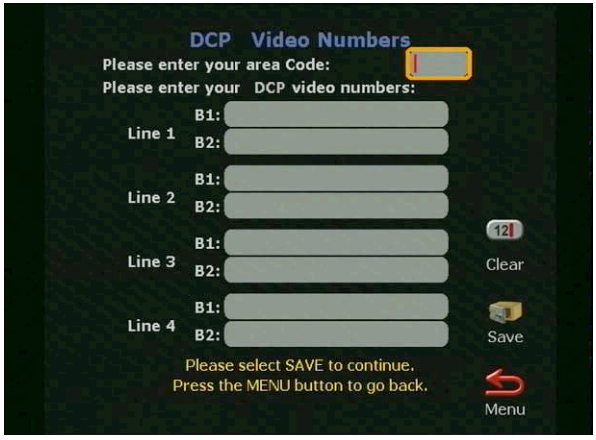


Figure 2-18. DCP Video Numbers Screen

1. Enter the STD or area code and press the down arrow on the remote control to continue to the next line.
2. Enter the DCP phone number used for each line.
3. When complete, highlight the **Save** icon and press the SELECT button on the remote control.

Audio Quality

The **Audio Quality Preference** screen (**System Info > Admin Setup > Video Network > IMUX > Audio Quality**) allows the selection of an audio protocol. G.722 audio delivers a higher quality of audio than G.728 and uses 48 Kbps of the call bandwidth. G.728 delivers telephone quality audio and only uses 16 Kbps of the call bandwidth. G.728 is generally used for lower data rates.

To set the audio protocol, use the **+** and **-** zoom buttons on the remote control to move the slider.

Note Changing the audio quality preferences in a call can only be done in an H.320 call. No changes can be made while in an H.323 call.

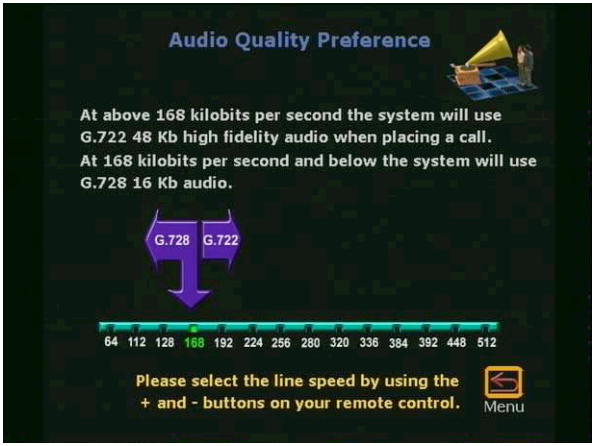

Audio Quality Preference
At above 168 kilobits per second the system will use G.722 48 Kb high fidelity audio when placing a call.
At 168 kilobits per second and below the system will use G.728 16 Kb audio.
G.728
G.722
64 112 128 168 192 224 256 280 320 336 384 392 448 512
Please select the line speed by using the + and - buttons on your remote control.
Menu

Figure 2-19. Audio Quality Screen

Advanced Dialing

On the **Advanced Dialing** screen (**System Info > Admin Setup > Video Network > IMUX > Advanced Dialing**) you can define how each DCP channel is dialed. By default, channels are dialed in parallel.

- **Dial channels in parallel:** When this option is selected, the ViewStation dials all DCP channels simultaneously.
- **Dial channels one at a time:** When selected, the ViewStation dials each DCP channel one at a time until all the channels are connected. This feature is used to overcome local network problems.

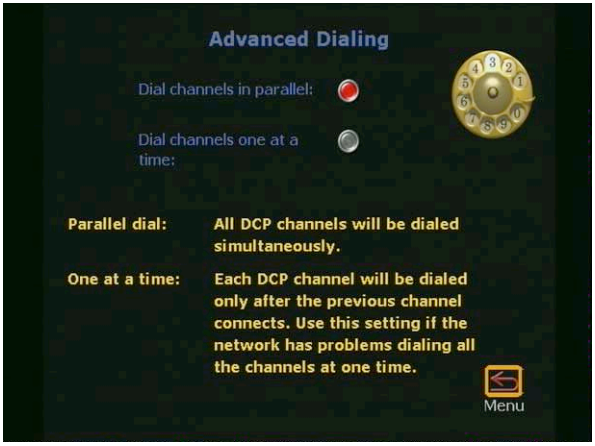

Advanced Dialing
Dial channels in parallel:
Dial channels one at a time:
Parallel dial:
All DCP channels will be dialed simultaneously.
One at a time:
Each DCP channel will be dialed only after the previous channel connects. Use this setting if the network has problems dialing all the channels at one time.
Menu

Figure 2-20. Advanced Dialing Screen

Dialing Speeds

The **Dialing Speeds** screen (**System Info > Admin Setup > Video Network > IMUX > Dialing Speeds**) specifies the dialing speeds that are available when a call is placed.

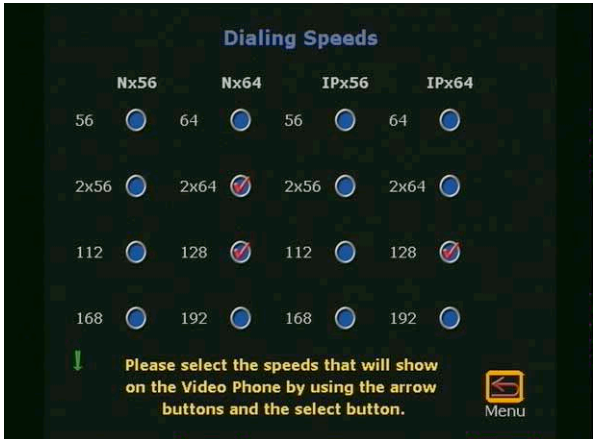


Figure 2-21. Dialing Speeds Screen

- Highlight the circle to the right of a speed and press the SELECT button to select that speed. A red check mark appears on the **Dialing** screen when a speed is selected.

DCP Video Network

The **DCP Video Network** screen (**System Info > Admin Setup > Video Network > DCP Video Network**) contains information entered during system setup. The five user-configurable fields are:

Country Code: Choose the **Country Code** associated with the country where the ViewStation is used.

Area Code: Choose the **Area Code** or **STD Code** where the ViewStation is used.

Number A: Enter the primary DCP number assigned to the ViewStation.

Number B: Enter the secondary DCP number assigned to the ViewStation.

DCP Switch Protocol: Select the appropriate DCP switch protocols. Contact the DCP provider to determine the DCP switch protocol.

DCP Dialing Prefix: The DCP dialing prefix is used to access an outside line if the ViewStation is connected to a PBX.

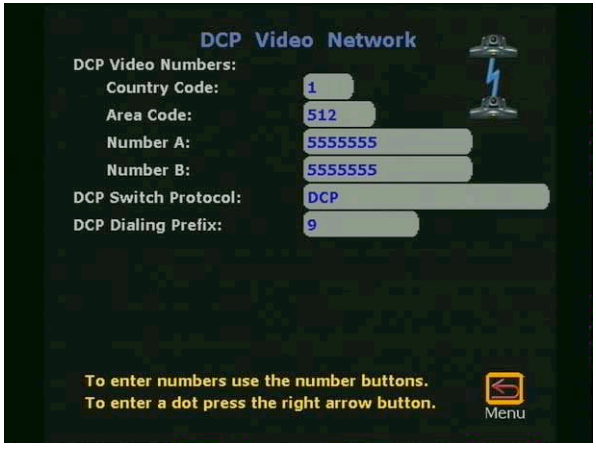


Figure 2-22. DCP Video Network Screen

Call Preference

The **Call Preference** screen (**System Info > Admin Setup > Video Network > Call Preference**) shown in Figure 2-23 determines how a video call is made. The two types of calls made are:

- DCP Video Calls (H.320)
- LAN/Internet Calls (H.323)

DCP Video Calls (H.320):

- **Checked:** Enables H.320 videoconferencing on the ViewStation.
- **Not Checked:** Disables H.320 videoconferencing ability on the ViewStation.

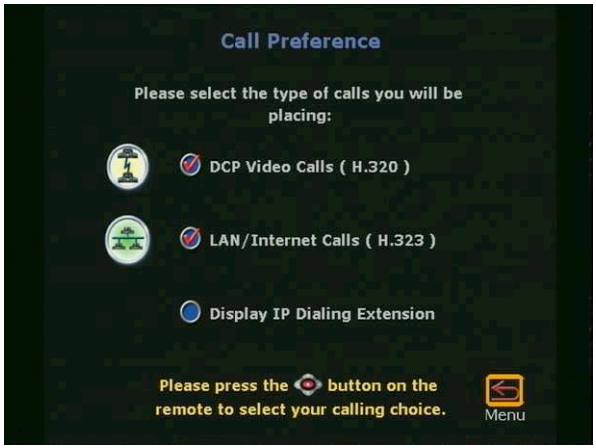

Call Preference
Please select the type of calls you will be placing:
DCP Video Calls (H.320)
LAN/Internet Calls (H.323)
Display IP Dialing Extension
Please press the button on the remote to select your calling choice.
Menu

Figure 2-23. Call Preference Screen

LAN/Internet Calls (H.323):

- **Checked:** Enables H.323 videoconferencing on the ViewStation.
- **Not Checked:** Disables H.323 videoconferencing on the ViewStation.
- **Display IP Dialing Extension:** The IP dialing extension is used if a ViewStation uses the Global Address Book (GAB).

  Checked: The E.164 Dialing Extension is displayed when a video call is initiated in H.323 calls.

Not Checked: The E.164 Dialing Extension is not displayed when a video call is initiated in H.323 calls.

Multi-Point Setup (MP Enabled ViewStations only)

The **Multi-Point** setup screen determines which mode the multi-point is used in. These modes are:

- **Auto:** The ViewStation automatically switches between discussion and presentation modes.
- **Discussion:** This mode is also called the continuous presence. Each site remains on the screen in a tiled arrangement.
- **Presentation:** The main presenter remains on the screen.

  Full Screen: Whoever is speaking is viewed in full screen. When a new endpoint speaks, that endpoint appears full screen.

ViewStation 128

The **Network Setup** screen (**System Info > Admin Setup > Video Network**) shown in Figure 2-24 provides three icons, which:

- Set Dialing Speeds
- Configure Video Network properties
- Set Call Preferences

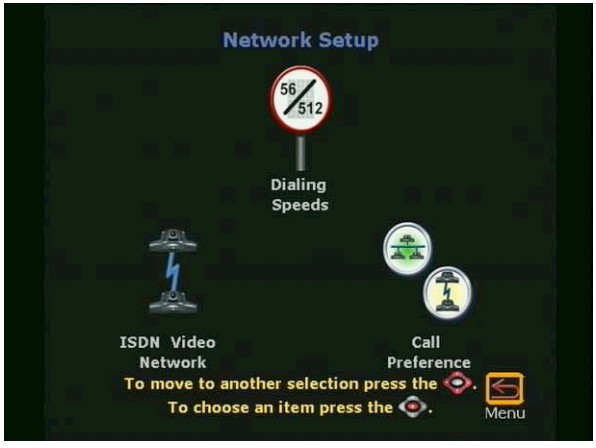


Figure 2-24. ViewStation 128 ISDN Network Setup Screen

Dialing Speeds

The **Dialing Speeds** screen (**System Info > Admin Setup > Video Network > Dialing Speeds**) specifies the dialing speeds that are available when a call is placed.

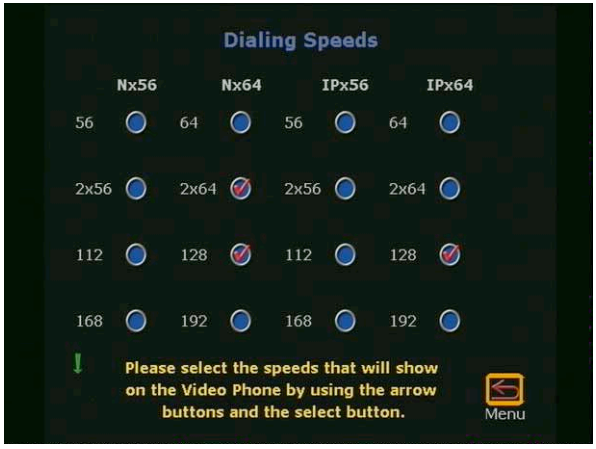


Figure 2-25. Dialing Speeds Screen

Highlight the box to the right of a speed and press the SELECT button to select that speed. A red check mark appears on the **Dialing** screen when a speed is selected.

ISDN Video Network

The **ISDN Video Network** screen (**System Info > Admin Setup > Video Network > ISDN Video Network**) contains information entered during system setup. The six user configurable fields are:

Country Code: Choose the **Country Code** associated with the country where the ViewStation is used

Area Code: Choose the **Area Code** or **STD Code** where the ViewStation is used

Number A: Enter the primary ISDN number assigned to the ViewStation

Number B: Enter the secondary ISDN number assigned to the ViewStation

ISDN Switch Protocol: Select the appropriate ISDN switch protocols. Contact the ISDN provider to determine the ISDN switch protocol.

Service Profile IDs (SPIDs): The **Service Profile Identifiers** screen (SPIDs) appears only if United States or Canada is selected as the country. If the ViewStation is connected to an internal phone system (PBX), a SPID might not need to be entered.

Note If the ViewStation is unable to find the SPIDs, check the network connection and verify that the ISDN numbers have been entered correctly:

- Enter the SPID numbers provided by the ISDN service provider.
- If the ViewStation is connected to a PBX, select the **PBX** icon.

To auto-detect the SPID numbers, highlight the **Start** icon and press the SELECT button on the remote control.

Note If this process is canceled, the ViewStation reboots and the entire setup procedure must be redone.

ISDN Dialing Prefix: The ISDN dialing prefix is used to access an outside line if the ViewStation is connected to a PBX.

ViewStation H.323 with V.35

The **Network Setup** screen **(System Info > Admin Setup > Video Network)** shown in Figure 2-26 provides four icons which:

- Sets Call Preferences
- Configures Video Network preferences
- Sets video Numbers
- Access the Advanced V.35 Setup features

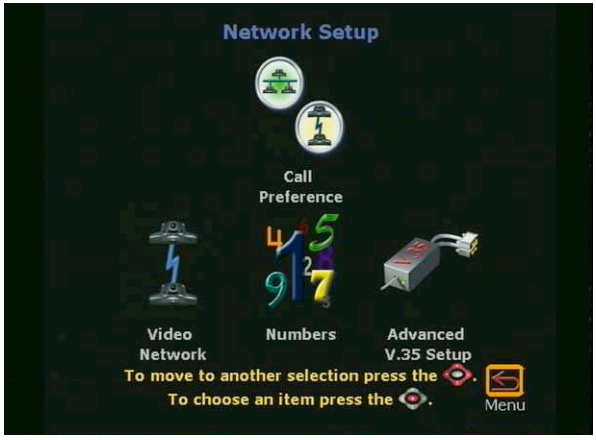


Figure 2-26. V.35 Network Setup Screen

Call Preference

The **Call Preference** screen shown in Figure 2-27 determines how a video call is placed. The two types of video communications for the ViewStation H.323 with V.35 are:

- V.35 video calls
- LAN/Internet (H.323) video calls

V.35 Video Calls: The **V.35 Video Calls** option shown in the first check box in Figure 2-28 determines if V.35 calls are made from the ViewStation.

- **Checked:** Enables the V.35 videoconferencing for the ViewStation H.323 with V.35.
- **Not Checked**: Disables the V.35 videoconferencing for the ViewStation H.323 with V.35.

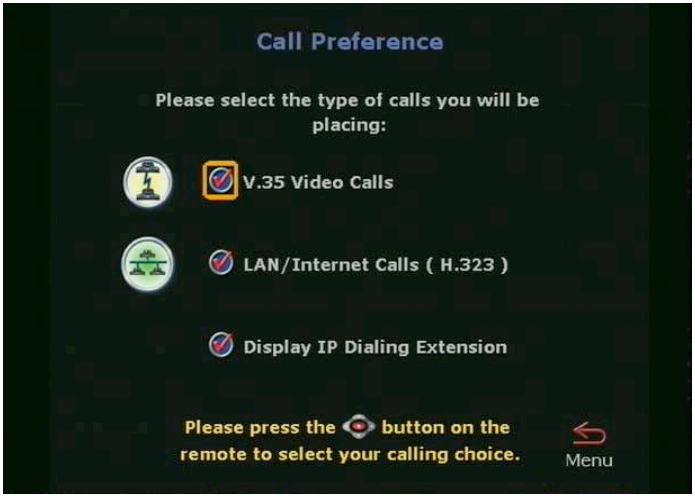

Call Preference
Please select the type of calls you will be placing:
V.35 Video Calls
LAN/Internet Calls (H.323)
Display IP Dialing Extension
Please press the button on the remote to select your calling choice.
Menu

Figure 2-27. V.35 Call Preference Screen

LAN/Intranet Calls (H.323)

The **LAN/Intranet Calls** option shown in the second check box in Figure 2-27 determines if H.323 calls are made from the ViewStation.

- **Checked:** Enables H.323 videoconferencing for the ViewStation.
- **Not Checked:** Disables H.323 videoconferencing for the ViewStation.

Display IP Dialing Extension

- **Checked:** Displays the IP dialing extension used in H.323 video calls from and to the ViewStation.
- **Not Checked:** The IP dialing extension is not displayed for H.323 video calls.

Video Network for V.35

The **Video Network** screen shown in Figure 2-28 is used to configure the following properties:

- RS-366 Dialing
- V.35 Ports Used
- Dialing Protocol

- Broadcast Mode

RS-366 Dialing:

- **Checked:** RS-366 dialing dials from the ViewStation through the DCE connection to the far end videoconference system.
- **Not Checked:** RS-366 dialing is disabled. This option must be *Not Checked* if the DCE is used to dial the call or if a far site is connected by a direct connection.

Note If the **RS-366 Dialing** option is enabled, select Dialing Speeds and set dialing prefixes and suffixes (see "*Advanced Dialing"* on page 61).

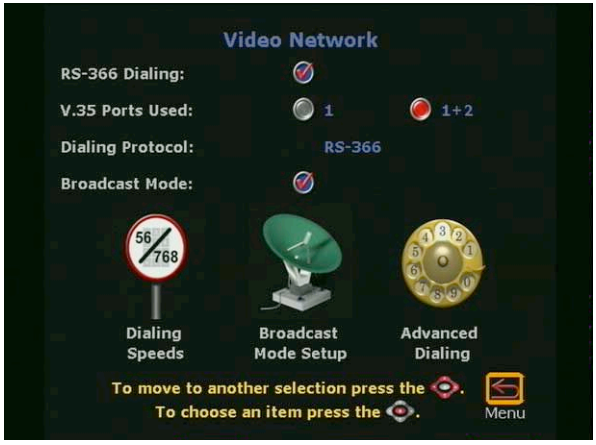


Figure 2-28. Video Network Screen

V.35 Ports used:

- **1:** If the ViewStation is used to place 1-channel video calls, select 1.
- **1+2:** If the ViewStation is used to place 2x56 Kbps or 2x64 Kbps channel video calls, select 1+2.

Dialing Protocol: RS-366 appears as the dialing protocol if the **RS-366 Dialing** option is enabled. If the **RS-366 Dialing** option is disabled, the dialing protocol does not appear.

Broadcast Mode: Enable or disable H.331 broadcast mode if the ViewStation is connected to the network via satellite.

Dialing Speeds: If RS-366 dialing was enabled, select the speed used when placing a call on the **Dialing Speeds** screen. The default speeds are:

- 2x64 Kbps
- 256 Kbps
- 384 Kbps
- 512 Kbps
- 768 Kbps

To add or remove speeds:

- Highlight the desired data rate.
- Press the SELECT button on the remote control.
- A red check appears when a dialing speed is selected.

The selected dialing speeds apply only to RS-366 calls. Nx56 and Nx64 are for H.320 calls, while IPx56 and IPx64 are for H.323 calls. For nondialed calls the call speed is determined by the DCE.

Broadcast Mode Setup: The ViewStation V.35 supports H.331 broadcast mode, used for broadcast transmissions via satellite. In broadcast mode the ViewStation sends and receives audio and video, without handshaking, to many ViewStations or other H.331-compatible systems, such as large satellite network. When enabled in the **Video Network** screen, the **Broadcast Mode Setup** satellite icon appears.

Figure 2-29. Broadcast Mode Screen

Video Format:

- Select QCIF to transmit Quarter Common Interchange Format (176x144 resolution)
- Select FCIF to transmit Full CIF (352x288 resolution)

Video Protocol: Select a Video Standard

- H.261
- H.263

Note Far-end systems which support the H.263 standard can receive H.263. For far-end systems that support H.261 only, the ViewStation automatically adjusts to accommodate H.261 video.

Audio Mode: Select the preferred audio protocol for transmitting audio:

- G.728
- G.711u
- G.711A
- G.722-56
- G.722-48
- Off

Frame Rate: Select the preferred video frame rate for the broadcast transmission:

- 30 fps
- 15 fps
- 10 fps
- 7.5 fps

Note Broadcast configuration parameters should be set to accommodate the lowest common denominator of the systems that are receiving the broadcast. For example, if one system in the conference supports H.261 only, broadcast should be set to H.261 to ensure all systems participate in the conference.

Advanced Dialing: If **RS-366 Dialing** is enabled, the dialing prefixes are sent for calls from the ViewStation V.35 as numbers and

characters to the DCE before sending the number to be dialed. Dialing suffixes define the dialing speed of the DCE equipment. This provides the users with the capability to select a dialing speed when placing a call.

Note Prefixes and suffixes are a function of the DCE. Consult the *DCE User Guide* for additional information.

Figure 2-30. Advanced V.35 Dialing Screen

Video Numbers

The V.35 **Video Numbers** screen is used in RS-366 dialing.

- Enter Area Code.
- Enter the ISDN video number in line 1 B1.
- Enter the ISDN video number in line 1 B2.
- Highlight the **Save** icon and press the SELECT button on the remote control.

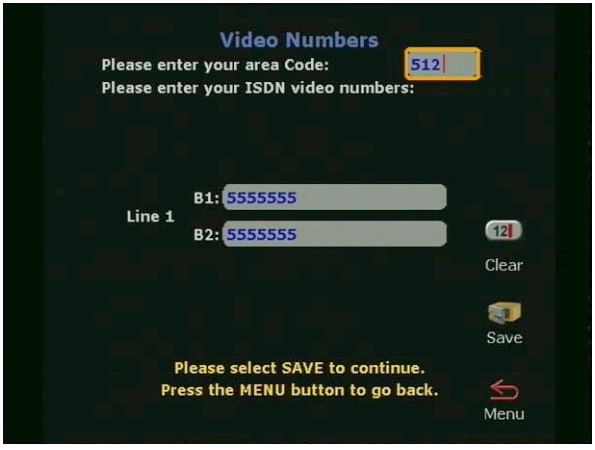


Figure 2-31. Video Numbers Screen for V.35

Advanced V.35 Setup

The **Advanced V.35 Setup** screen (shown in Figure 2-32) is used to configure the input and output signaling to and from the V.35 network interface module. For a complete technical description of the Advanced V.35 Setup, see *"V.35 Technical Information"* on page 193.

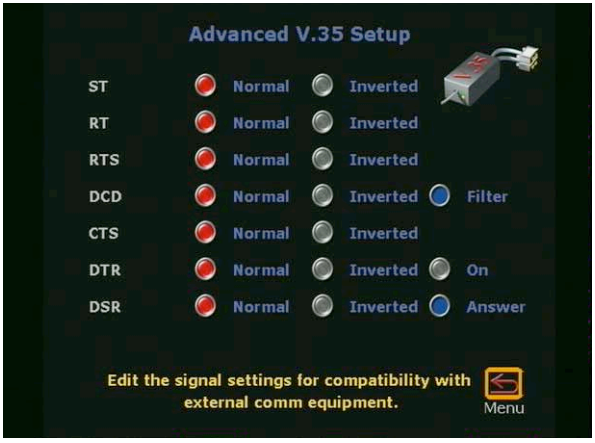


Figure 2-32. Advanced V.35 Setup Screen

LAN / H.323

The **LAN/H.323** screen (**System Info > Admin Setup > LAN/H.323**) is used to configure IP networking for the ViewStation. There are five user-configurable screens accessed through the **LAN/H.323** screen (shown in Figure 2-33):

- **LAN/Intranet:** Configure IP networking
- **H.323**: Configures gateway, gatekeeper, dialing speeds, QoS, and firewall settings for the ViewStation
- **SNMP:** Sets up remote management
- **Global Address:** Specifies server IP, preferences, dialing rules, private network, and gateway numbers
- **Global Management:** Sets up global management

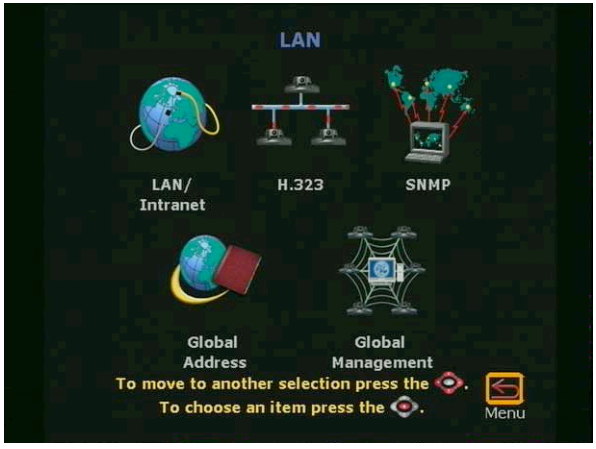


Figure 2-33. LAN / H.323 Screen

LAN / Internet

The **LAN & Intranet** screen (**System Info > Admin Setup > LAN/H.323 > LAN/Intranet**) shown in Figure 2-34 contains information needed for H.323 videoconferencing.

Host Name: The host name is the DNS name given to the ViewStation by the LAN Manager or the ViewStation administrator. It may be used in place of an IP address when dialing H.323 calls. For example, the host name of the ViewStation may be “Lobby” but the DNS name for that ViewStation is **lobby.austin.polycom.com**.

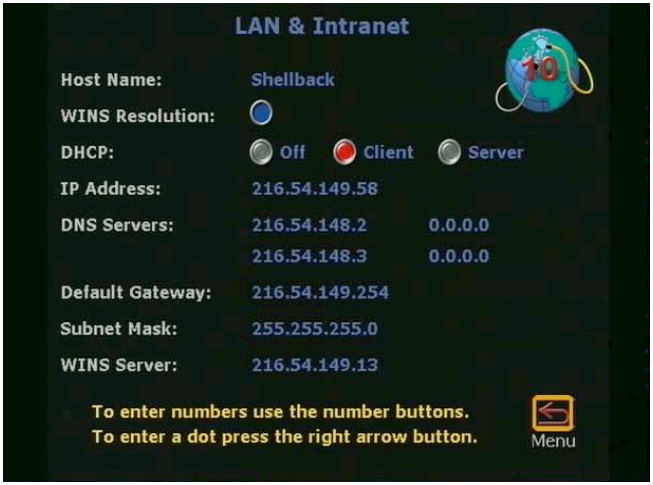


Figure 2-34. LAN & Intranet Screen

WINS Resolution: WINS resolution determines the IP address associated with a network device.

- **Checked:** The ViewStation sends requests to the WINS server for WINS name resolution.
- **Not Checked:** The ViewStation does not send any requests for name resolution to the WINS server.

Note The ViewStation sends a request for WINS resolution to the WINS server up to 15 times. After 15 tries, the ViewStation stops sending WINS resolution requests to the server.

DHCP: Dynamic Host Configuration Protocol is used to auto-assign IP addresses within a LAN.

- **Server:** The ViewStation DHCP server assigns up to 12 IP addresses from 1.1.1.3 to 1.1.1.14 when this option is checked.

Note If the DHCP server option is not present, run the ViewStation SoftUpdate to enable the DHCP server option setup. See *"Upgrading Software"* on page 165.

- **Client:** The DHCP *S*erver automatically assigns an IP, DNS Server Address, a Default Gateway, Subnet Mask, and the WINS server address.

When this option is selected, **IP**, **DNS**, **Default Gateway**, **Subnet Mask,** and **WINS** server address fields cannot be changed.

- **Off selected:** When OFF is selected, the LAN manager or ViewStation administrator must enter all values as static addresses. These values do not change unless manually changed.
  - **IP Address:** Enter the static IP address assigned to the ViewStation
  - **DNS Servers:** The ViewStation supports up to four DNS servers for multiple LANs
  - **Default Gateway:** Enter the server's default gateway address
  - **Subnet Mask:** Enter the subnet mask for the LAN
  - **WINS Server:** Enter the WINS server address for the LAN

H.323 Setup

The **H.323 Setup** screen (**System Info > Admin Setup > LAN/H.323 > H.323**) shown in Figure 2-35 is used to configure the H.323 communication protocols for the ViewStation.

Figure 2-35. H.323 Setup Screen

The following five items configurable by the user are:

- **Setup:** Defines the H.323 name and extension for the ViewStation. See *"Setup"* on page 67.
- **Gateway:** Defines the gateway speed, prefix, and suffix used for the ViewStation. See *"Gateway"* on page 69.
- **Gatekeeper:** Defines the gatekeeper operation parameters for the ViewStation. See *"Gatekeeper"* on page 70.
- **Dialing Speeds:** Defines the videoconferencing speeds for the ViewStation. See *"Dialing Speeds"* on page 71.
- **QoS:** Defines firewall and NAT parameters for the ViewStation. See *"Quality of Service (QoS) and Firewalls"* on page 72.

Setup

The **H.323 Setup** screen (**System Info > Admin Setup > LAN/H.323 > Setup**) is used to specify the H.323 or IP name.This information applies to the H.323 feature included with all models.

The H.323 extension (E.164) is a naming scheme based on the ViewStation serial number. This number MUST be unique to the ViewStation.

An **Auto H.323 Dialing** check box appears below the **H.323 extension (E.164)** field.

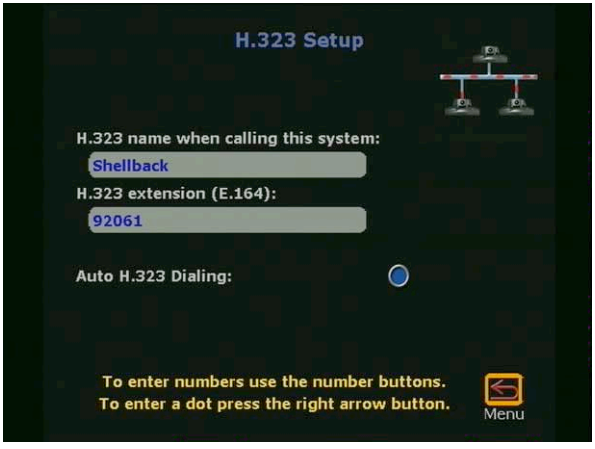


Figure 2-36. H.323 Setup Screen

H.323 name when calling this system: Enter a name in the text box. This name is displayed on the far site during a videoconference. Use a name which is easy to remember such as the name of the conference room.

- **H.323 extension (E.164)**: E.164 is a naming scheme used to identify the ViewStation with the H.323 name.

Auto H.323 Dialing: The ViewStation determines how a call is placed based on the number dialed and speed selected. For example:

For H.320 calls: If the number dialed is 555-1234 and the speed is 2X64, the ViewStation provides an additional field to place dials a nonbonding H.320 call.

For H.323 calls: If the number is 255.255.255.90 and the speed is 2X128 then the ViewStation dials a nonbonding H.323 call, but only provides one placeholder for H.323 calls.

Note If you dial by DNS name or PBX extension, do not check this feature.

- **Checked:** The ViewStation assumes the video call is for H.323 videoconferences and provides only one placeholder to make a video call.
- **Not Checked:** The ViewStation provides an option to place IP or ISDN calls as shown in Figures 2-37 and 2-38.

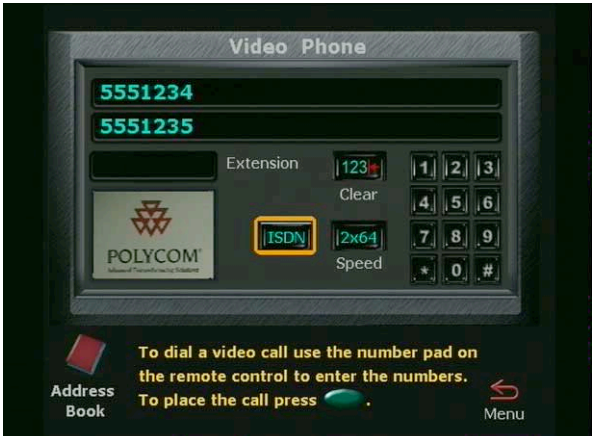


Figure 2-37. Video Phone Screen (with ISDN Selected)

Figure 2-38. Video Phone Screen (with IP Selected)

Gateway

The **Gateway** screen (**System Info > Admin Setup > LAN/H.323 > Gateway**) is used to configure the gateway profile in accordance with a specific gateway used on a LAN. The prefix and suffix are preprogrammed on the gateway with a bandwidth used to make a call. For example:

72569

- The number 7 is assigned to a specific RadVision gateway.
- The number 256 is the bandwidth speed at which the gateway places a video call.
- The number 9 tells the gateway to place a call outside the LAN.

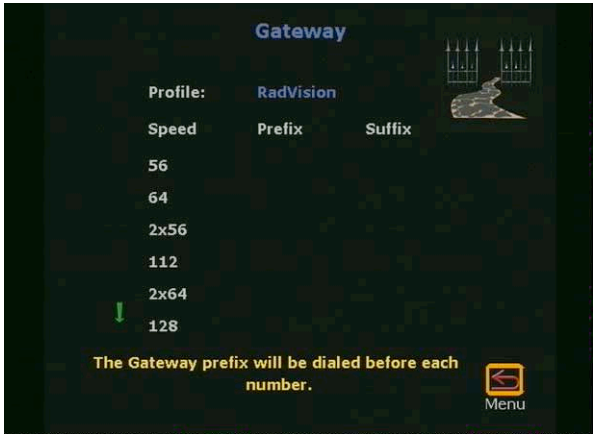


Figure 2-39. Gateway Screen

Note The gateway places calls if the bandwidth number corresponds to the correct line speed. For example:

An invalid speed is 255. Valid bandwidth speeds are listed on the **Gateway** screen shown in Figure 2-39. The Gateway rejects and invalid speed and does not connect the call.

Note The Gateway configuration has no effect if a gatekeeper or gateway is not used.

Gatekeeper

The **Gatekeeper** screen (**System Info > Admin Setup > LAN/H.323 > Gatekeeper**) shown in Figure 2-40 is used to enable, disable, or configure an H.323 gatekeeper.

Off: The gatekeeper is not used. The **Gatekeeper IP Address** text field is not accessible.

Specify: The gatekeeper is used. Enter the gatekeeper IP address in the grey text box. Contact the LAN manager to obtain the gatekeeper IP address.

Auto: When set to **Auto** the ViewStation automatically searches for the presence of an available gatekeeper. If a gatekeeper is not used and **Auto** has been selected, the ViewStation remains in **Auto** mode until changed.

Figure 2-40. Gatekeeper Screen

Note A gatekeeper is not required to make IP-to-IP Intranet calls.

If **Specify** or **Auto** is selected, one of three icons appears on the ViewStation **Main Calling** screen when the ViewStation is rebooted. These icons are:

- Red GK (Gatekeeper) Down Arrow: Cannot find gatekeeper
- Yellow GK Box: Found gatekeeper, but not allowed to register
- Green GK Up Arrow: Found gatekeeper and registered

Dialing Speeds

The **Dialing Speeds** screen (**System Info > Admin Setup > LAN/H.323 > Dialing Speeds**) shown in Figure 2-41 is used to set the H.323 and H.320 dialing speeds for the ViewStation.

- Nx56 and Nx64 (left side of screen) represent the dialing speeds for H.320 calls.
- IPx56 and IPx64 (right side of screen) represent the dialing speeds for H.323 calls.

The 2x options listed under IPx56 are used for gateway calls from the ViewStation. Non-2x options provide connection speeds from 56 Kbps to 768 Kbps.

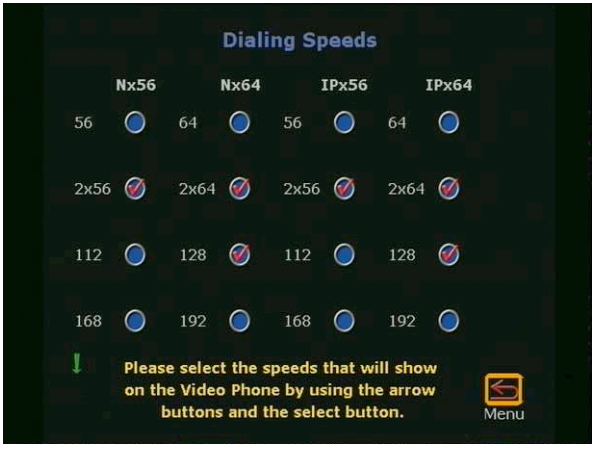


Figure 2-41. ISDN and IP Dialing Speeds Screen

Quality of Service (QoS) and Firewalls

The **Quality of Service and Firewalls** screen (**System Info > Admin Setup > LAN/H.323 > QoS**) shown in Figure 2-42 allows the LAN Manager to use fixed or nonfixed TCP and UDP ports, select the IP precedence, Network Address Translator (NAT), and firewall options. The following options are configurable:

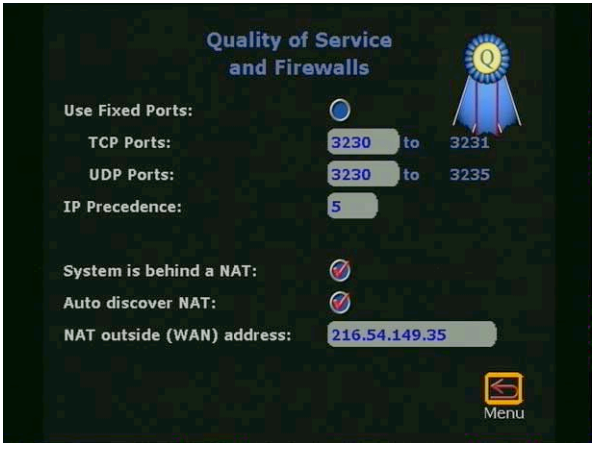


Figure 2-42. Quality of Service and Firewalls Screen

Use Fixed Ports: Specifies the fixed ports assigned to the ViewStation when protected by a firewall.

IP Precedence: Specifies the priority given IP packages sent from the ViewStation. For IP precedence to work, all routers on the network MUST be configured to allow IP precedence.

System is behind a NAT: This option instructs the ViewStation to use the IP address that appears in the **NAT Outside (WAN) Address** field as its external IP address. When using a Virtual Private Network (VPN) for your network connection, make sure that **System is behind a NAT** is not selected.

Auto discover NAT: This options automatically assigns the WAN IP address to place calls outside the WAN.

NAT outside (WAN) address: Specify the external IP address used by the NAT if ViewStation is unable to discover the external IP address automatically.

> For more information about configuring the ViewStation for operation behind a NAT (Network Address Translation), see *"Network Address Translation"* on page 189.

SNMP

The **SNMP Setup** screen (**System Info > Admin Setup > LAN > SNMP**) provides for remote management from an SNMP console.

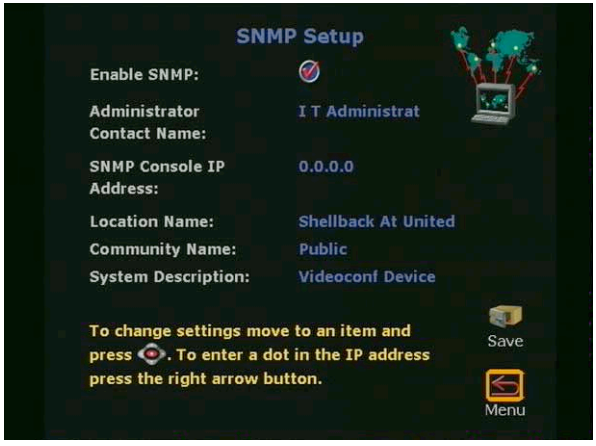


Figure 2-43. SNMP Setup Screen

The ViewStation sends SNMP reports on the following:

- Low battery power in the remote control.

- The system is active (powered on) after a long period of inactivity.
- Authentication failure: An attempt has been made to log in as an administrator with the wrong password.
- Authentication success: The Administrator has logged in successfully.
- Call failed for reason other than a busy line.
- A user has asked for help from the Technical Assistance Center. See *"Using ViewStation Help"* on page 28.
- The ViewStation is engaged in a video call.
- A telephone or video call has disconnected.

User options on the **SNMP Setup** screen are:

Enable SNMP:

- **Checked:** Enables SNMP management from an SNMP console.
- **Not Checked:** Disables SNMP management.

Administrator Contact Name: Enter the name of the person responsible for remote management of the system. The default setting is **IT Administrator**.

SNMP Console IP Address: Enter the IP address of the SNMP traps sent by the ViewStation. Enter 0.0.0.0 in this field if any SNMP management console is capable of receiving information from the ViewStation.

Location Name: Enter the location of the ViewStation. This field defaults to the ViewStation system name at your country name. For example, **Shellback At United States**.

Community Name: Enter the SNMP management community in which you want to enable the ViewStation. The default setting name for this field is **Public**.

System Description: This field displays the type of videoconferencing device. This field cannot be changed.

Global Address

The **Global Address Book (GAB)** screen, (**System Info > Admin Setup > LAN/H.323 > Global Address**) shown in Figures 2-44, 2-45, and 2-46) must be configured to use the Polycom Global Management System™ software. The number of Global Address Book options varies with each ViewStation model. The following table is a list of options for each ViewStation model.

Model	H.323	BRI	DCP	128	V.35	MP
Server	•	•	•	•	•	•
Preferences	•	•	•	•	•	•
Private NET		•	•	•		•
Gateway Number	•	•	•	•	•	•
Dialing Rules 1		•	•	•	•	•
Dialing Rules 2		•	•	•	•	•

Note The **Gateway Number** and **Private Net** features are not available at this time. These features will be available in a future release of the Global Management System.

The Global Address screen (shown in Figure 2-44) for the ViewStation H.323 has three icons.

- **Server:** The **Server** is used to specify the IP address of the Global Address Book (GAB) server.
- **Gateway Number:** Gateway Number is not available at this time. These features will be available in a future release of the Global Management System.
- **Preferences:** The **Preferences** is used to set the global address book display and dialing preferences.

See page 80 to configure your Global Address properties for the ViewStation H.323.

Figure 2-44. Global Address Screen (ViewStation H.323)

The Global Address Screen for the ViewStation H.323 with ISDN or DCP (shown in Figure 2-45) has six icons.

- **Server:** The **Server** screen is used to specify the IP address of the Global Address Book (GAB) server.
- **Preferences:** The **Preferences** screen is used to set the global address book display and dialing preferences.
- **Private NET:** The **Private NET** is not available at this time. This feature will be available in a future release of the Global Management System.
- **Gateway Number:** Gateway Number is not available at this time. This features will be available in a future release of the Global Management System.
- **Dialing Rules 1:** The **Dialing Rules 1** screen is used to set network dialing rules.
- **Dialing Rules 2:** The **Dialing Rules 2** screen is used to set network dialing prefixes for different area codes.

See page 79 to configure your Global Address preferences for the ViewStation H.323 with Quad BRI ViewStation H.323 with Avaya DCP and ViewStation 128.

Figure 2-45. Global Address Screen (ViewStations with ISDN and DCP)

The **Global Address** screen for the ViewStation H.323 with V.35 network interface module (shown in Figure 2-46) has five icons.

- **Server:** The **Server** screen is used to specify the IP address of the Global Address Book (GAB) server.
- **Preferences:** The **Preferences** screen is used to set the global address book display and dialing preferences.
- **Gateway Number:** Gateway Number is not available at this time. This feature will be available in a future release of the Global Management System.
- **Dialing Rules 1:** The **Dialing Rules 1** screen is used to set network dialing rules.
- **Dialing Rules 2:** The **Dialing Rules 2** screen is used to set network dialing prefixes for different area codes.

See page 79 to configure your Global Address preferences for the ViewStation H.323 with V.35 network interface module.

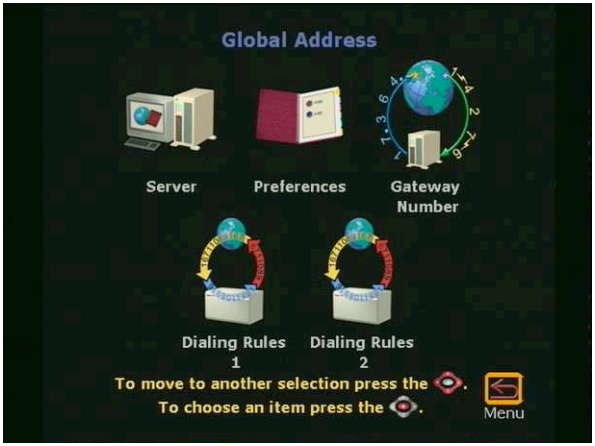


Figure 2-46. Global Address for ViewStation V.35

Server

The **Global Address Server** screen (**System Info > Admin Setup > LAN/H.323 > Global Address > Server**) is used to specify the IP address of the GAB server.

Global Address
Server IP Address:
Server Password:
Display Global Addresses:
Register this System When Powered On:
To move to another selection press the .
To choose an item press the .
Menu

Figure 2-47. Global Address Book (GAB) Server Screen

Set the following options on this screen:

Server IP Address: Enter the IP address for the GAB server in the gray text area below the **Server IP Address** field.

Server Password: Enter the GAB server password, if required.

Display Global Addresses:

- **Checked:** The global addresses appear in the ViewStation address book.
- **Not Checked:** Only addresses entered manually are displayed in the ViewStation address book.

Register this System When Powered On:

- **Checked:** When the ViewStation is powered on, the ViewStation registers the name and new IP address (if DHCP is used) in the GAB.
- **Not Checked:** The ViewStation has access to the GAB, but does not register the name and new IP address (if DHCP is used) in the GAB.

Preferences

The **Global Address Book Preferences** screen (**System Info > Admin Setup > LAN/H.323 > Global Address > Preferences**) is used to set the global address book display and dialing preferences.

ViewStation with Quad BRI, V.35, Avaya DCP, and MP

Show Addresses in Address Book:

- **ISDN Video Calls (H.320)**
  - **Checked:** Displays global ISDN video numbers in the Global Address Book.
  - **Not Checked:** Only local ISDN numbers appear in the Global Address Book.
- **LAN/Internet Calls (H.323)**
  - **Checked:** Displays global IP addresses in the Global Address Book.
  - **Not Checked:** Only IP addresses which have ben entered manually appear in the Global Address Book.

Maximum Line Speed for Global Addresses: Set the line speeds for each type of call. The speeds selected affect only Global Address Book entries in the ViewStation address book.

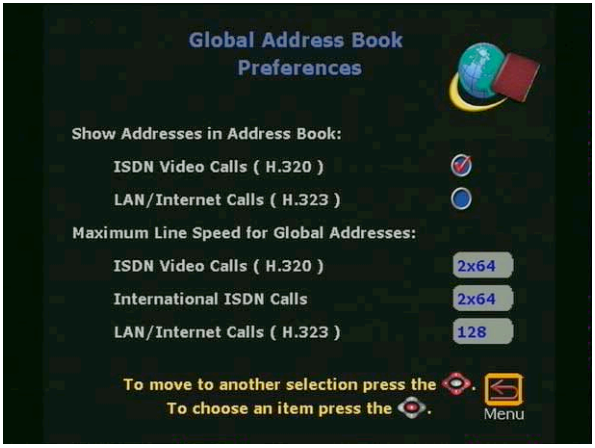


Figure 2-48. GAB Preferences Screen

ViewStation H.323

Show Addresses in Address Book:

- **ISDN Video Calls (H.320)**
  - **Checked:** Displays global ISDN video numbers in the Global Address Book.
  - **Not Checked:** Only local ISDN numbers appear in the Global Address Book.
- **LAN/Internet Calls (H.323)**
  - **Checked:** Displays global IP addresses in the Global Address Book.
  - **Not Checked:** Only IP addresses which have ben entered manually appear in the Global Address Book.

Maximum Line Speed for Global Addresses: Set the line speeds for each type of call. The speeds selected affect only Global Address Book entries in the ViewStation address book.

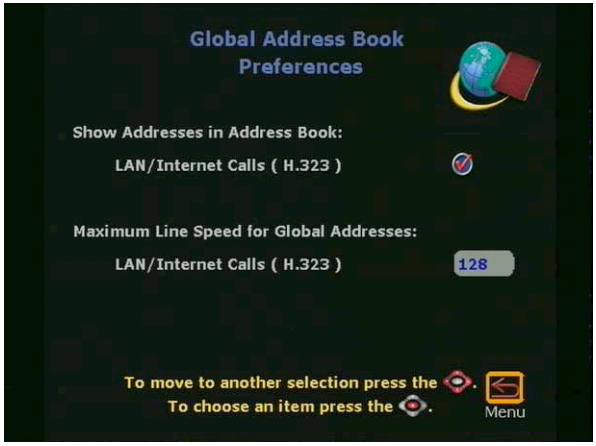

Global Address Book
Preferences
Show Addresses in Address Book:
LAN/Internet Calls (H.323)
Maximum Line Speed for Global Addresses:
LAN/Internet Calls (H.323)
128
To move to another selection press the .
To choose an item press the .
Menu

Figure 2-49. GAB Preferences Screen for ViewStation H.323

Private NET

The Private Net feature (**System Info > Admin Setup > LAN/H.323 > Global Address > Private Net**) is not available at this time. This feature will be available in a future release of the Global Management System.

Gateway Number

The **Gateway Number** feature (**System Info > Admin Setup > LAN/H.323 > Global Address > Gateway Number**) is not available at this time. These features will be available in a future release of the Global Management System.

Dialing Rules 1

The **Dialing Rules 1** screen as shown in Figure 2-50 (**System Info > Admin Setup > LAN/H.323 > Global Address > Dialing Rules 1**), is used to set network dialing rules.

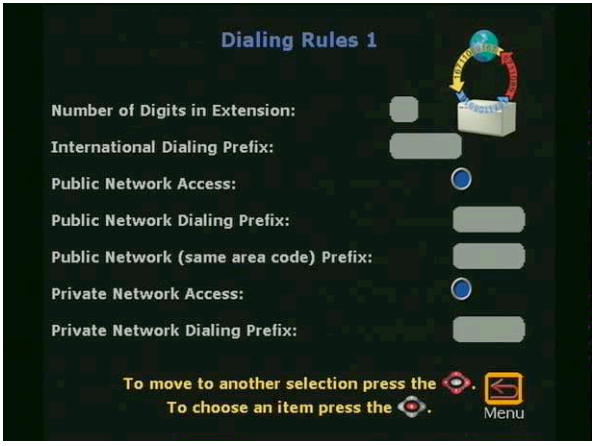

Dialing Rules 1
Number of Digits in Extension:
International Dialing Prefix:
Public Network Access:
Public Network Dialing Prefix:
Public Network (same area code) Prefix:
Private Network Access:
Private Network Dialing Prefix:
To move to another selection press the .
To choose an item press the .
Menu

Figure 2-50. Dialing Rules 1 Screen

ViewStation number(s) are automatically normalized for the address books of other ViewStations. Global dialing takes into account the numbers, area codes (or city codes), country codes, and international dialing access codes for ViewStations which are placing and receiving calls.

If the ViewStation is in an organization's private network as well as a public network, additional information may be required to assist the GAB on how to call other systems on or off the private network. If the ViewStation uses a public network exclusively, additional information is not required.

The GAB uses the following dialing rules when calling a public network or a private network.

Call From:	Call To:	Type of Call Placed:
Public Network	Public Network	Public Network
Public Network	Private Network	Public Network
Private Network	Public Network	Public Network
Private Network	Private Network	Private Network

The private network dialing rules are used to define a set of rules unique to the location of the ViewStation.

Number of Digits in Extension: Set the number of digits in the dialing extension. This usually applies to systems that are connected to a PBX.

International Dialing Prefix: Enter the prefix required to place international calls. This prefix is automatically inserted before any international calls are made from the GAB. This overrides the international dialing prefix that is normally set in the ViewStation **Country Setup** screen (**System Info > Admin Setup > General Setup > Country)**.

Public Network Access (Use Public Network):

- **Checked:** The ViewStation can dial calls outside of the private network.
- **Not Checked:** The ViewStation cannot place calls outside of the private network.

Public Network Dialing Prefix: Enter a dialing prefix as required by the PBX to dial out to the public network. This prefix is automatically inserted before dialing numbers to the public network from the GAB.

Public Network (same area code) Prefix: Enter a prefix if one is required to call within the same area code.

Private Network Access (Use Private Network):

- **Checked:** This option enables calls from a private network.
- **Not Checked:** This option disables calls from a private network.

Private Network Dialing Prefix: Enter the dialing prefix required to dial within a private network. This prefix is normally used to access an organization from inside the private network.

Dialing Rules 2

The **Dialing Rules 2** screen (**System Info > Admin Setup > LAN/H.323 > Global Address > Dialing Rules 2**) is used to set network dialing prefixes for different area codes.

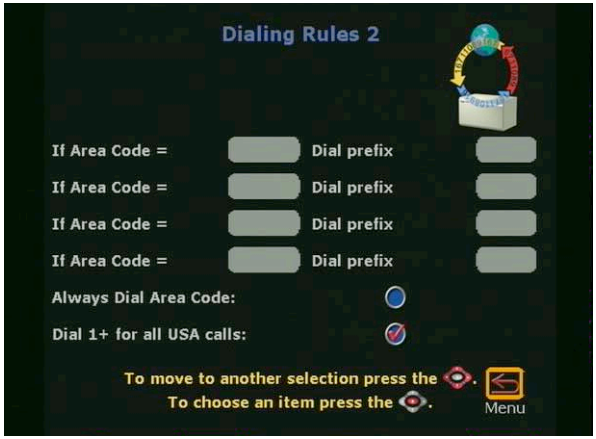


Figure 2-51. Dialing Rules 2 Screen

If the private network requires a dial prefix to access certain area codes (or city codes), set these prefixes on this screen. This prefix is dialed before the area code. For example, some sites require a 9 before dialing a 1-800-xxx-xxxx number.

Enable the **Always Dial Area Code** option if you must dial the area code to sites that have the same local area code as the ViewStation. This is sometimes necessary for 10-digit dialing.

Global Management

The **Global Management** screen (**System Info > Admin Setup > LAN/H.323 > Global Management**) is used to remotely monitor, configure, and maintain the ViewStation from a remote location. To use the Global Management feature, your organization must use Polycom Global Management System™ software.

The **Global Management** screen shown in Figure 2-52 contains icons used to configure the following global management for the ViewStation:

- **GMS Setup:** Configures GMS properties.
- **Info 1:** Provides for contact and support for the GMS system.

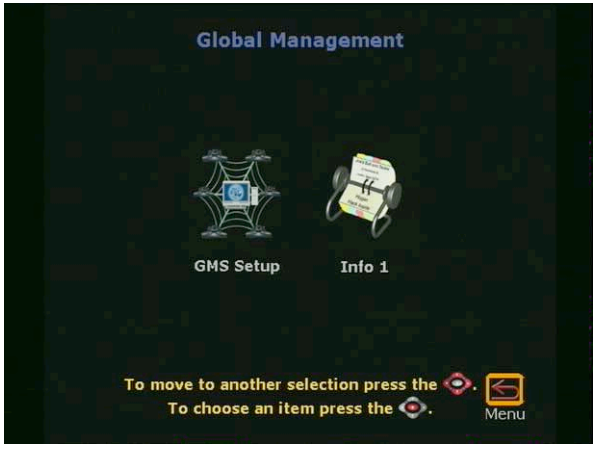


Figure 2-52. Global Management Screen

GMS Setup

The **Global Management** screen (**System Info > Admin Setup > LAN/H.323 > Global Management > GMS Setup**) shown in Figure 2-53 is used to configure the Global Management options. These options are:

Allow Remote Monitoring:

- **Checked:** The ViewStation system administrator may view a call or view the room where the ViewStation camera is installed.
- **Not Checked:** No video is sent to the ViewStation system administrator page. See *"System Information and Remote Management"* on page 149.

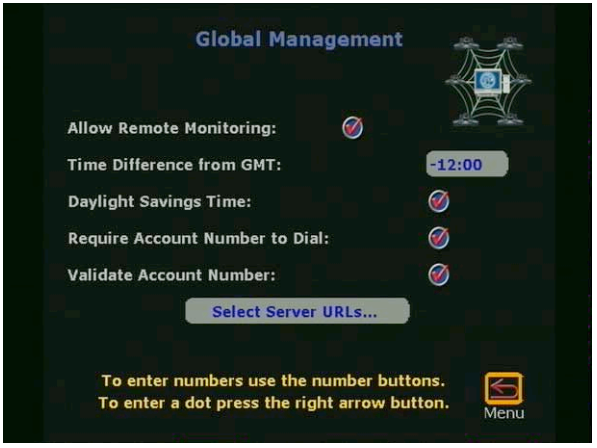


Figure 2-53. Global Management Screen

For privacy reasons, the **Allow Remote Monitoring** option can only be enabled or disabled from the ViewStation. ViewStation users with a LAN or private network may wish to consider whether this feature should be enabled or disabled.

Time Difference from GMT: Specifies the number of hours ahead or behind Greenwich Mean Time (GMT).

Daylight Savings Time (DST):

- **Checked:** Where DST is used.
- **Not Checked:** Where DST is not used.

Require Account Number to Dial: GMS 2.0 or later is required to use this option.

- **Checked:** This feature is used to log calls to a specific account for tracking and billing purposes. When selected, a call cannot be made without first entering an account number. This account number is saved in the GMS server database along with information specific to the call. Typically, the GMS administrator assigns the account number.
- **Not Checked:** Account numbers are not required to place a call, and information specific to the call is not maintained in the GMS database.

Validate Account Number: This feature appears when the **Require Account Number to Dial** option is checked. When this is checked, the ViewStation validates user account numbers against an account number profile assigned by the GMS administrator.

Select Server URLs: Enter the IP address for the computer where Global Management System is installed.

If access to the GAB server is not available, check for an incorrect IP address in the **Global Management** screen (**System Info > Admin Setup > LAN/H.323 > Global Management > GMS Setup**).

Global Management Information

The **Global Management** information screen (**System Info > Admin Setup > LAN/H.323 > Global Management > Info 1**) provides for contact and support information for the Global Management System.

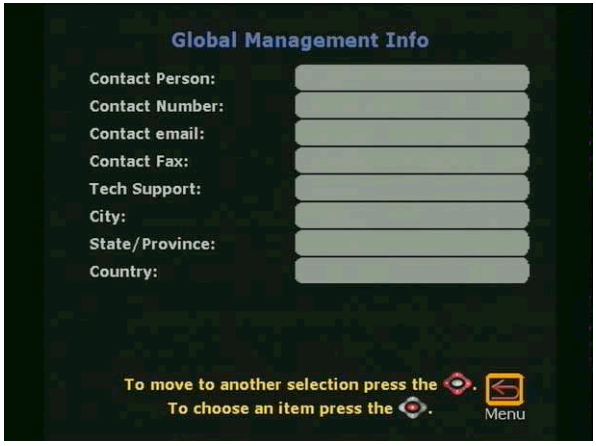


Figure 2-54. Global Management Information Screen

Data Conference

In the **Data Conference** screen (**System Info > Admin Setup > Data Conference**) enables or disables data conferencing through Microsoft NetMeeting or a ShowStation IP.

- **Microsoft NetMeeting™ Checked:** Enter the IP address of the PC hosting NetMeeting.

- **ShowStation IP Checked:** Enter the IP address of the ShowStation IP.
- **Off Checked:** Data Conferencing is disabled.

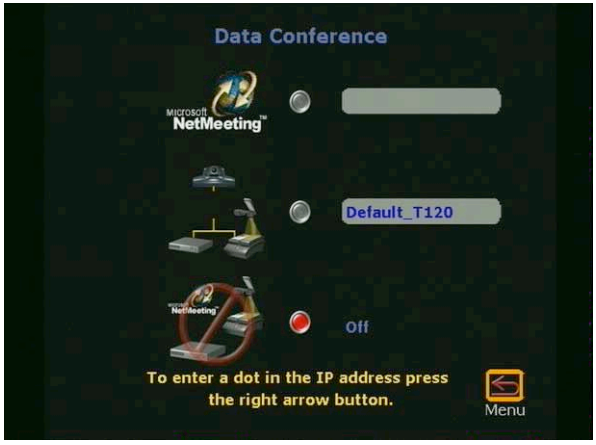


Figure 2-55. Data Conference Screen

Note T.120/NetMeeting is not available in H.323 calls.

Telephone & Audio

The **Telephone & Audio** screen (**System Info > Admin Setup > Phone/Audio**) is used to configure the following ViewStation telephone and audio properties as shown in Figure 2-56:

System Telephone Number:

- **Country Code:** Enter the country code assigned to the country in which the ViewStation is operating.
- **Area Code:** Enter the area, or STD code for the ViewStation.
- **Number:** Enter the phone number for the POTS line assigned to the ViewStation.

Room Phone Number: Enter the phone number assigned to the room that contains the ViewStation.

Mute Auto Answer Calls:

- **Checked:** The ViewStation mutes near site audio when an incoming call is automatically answered by the ViewStation.

- **Not checked:** The ViewStation sends near site audio to the far site when a call is automatically answered.

Sound Effects Volume: Highlight the **Sound Effects Volume** field and press the VOLUME UP and DOWN keys on the remote control to select the audio levels of the ViewStation. The sound effects volume level may be adjusted from 1 to 10. At each increment, a tone notifies the user of the volume level.

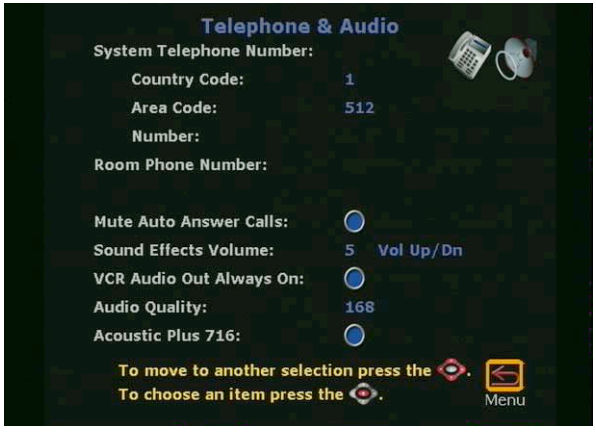


Figure 2-56. Telephone & Audio Screen

VCR Audio Out Always On (Except ViewStation 128):

- **Checked:** When a VCR, DVD, or other similar device is connected to the VCR IN port, the audio from that device is “Always On.”
- **Not Checked:** When the a VCR, DVD, or other similar device is connected to both the VCR IN and OUT ports of the ViewStation, uncheck **VCR Audio Out Always On** to prevent an audio feedback loop.

Audio Quality: The **Audio Quality Preference** screen (**System Info > Admin Setup Phone/Audio**) is used to adjust the ViewStation audio quality. At above 168 kilobits per second, the system uses G.722 48 Kbps high-fidelity audio. When placing a call at 168 Kbps and below, the system uses G.728 16 Kbps audio.

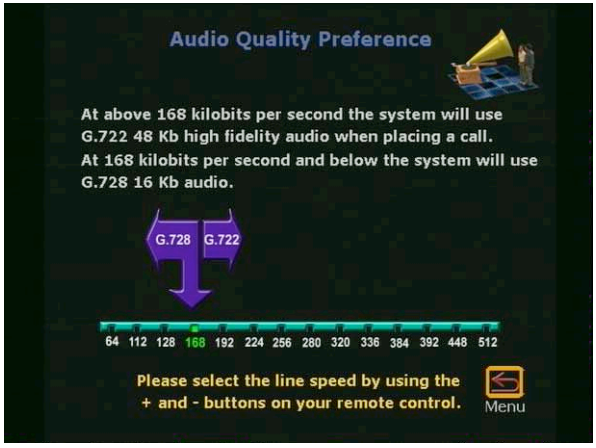

Audio Quality Preference
At above 168 kilobits per second the system will use G.722 48 Kb high fidelity audio when placing a call.
At 168 kilobits per second and below the system will use G.728 16 Kb audio.
G.728
G.722
64 112 128 168 192 224 256 280 320 336 384 392 448 512
Please select the line speed by using the + and - buttons on your remote control.
Menu

Figure 2-57. Audio Quality Screen (Default Setting Shown)

Acoustic Plus 716:

- **Checked:** Polycom's Acoustic Plus™ audio technology provides low bit rate wide band audio (7 KHz/16Kb) quality without compromising video quality.
- **Not checked:** Disables the acoustic plus feature.

Video / Camera

The **Video&Camera** screen (**System Info > Admin Setup > Video/Camera**) shown in Figure 2-58 is used to configure the ViewStation video and camera properties. These properties are:

Display Graphics in a Call:

- **Checked:** Graphics including mute, site name, and number appear on the screen during a call.
- **Not checked:** Graphics are not displayed on the screen during a video call. This is used to provide a clean image without graphics.

Snapshot Timeout:

- **Checked:** By default, all slides and snapshots are displayed for a period of four minutes. After four minutes, the ViewStation automatically returns to live video.

- **Not Checked:** The snapshot or slide stays on screen until the near or far site user presses the SNAPSHOT button on the remote control to return to live video.

Note Both sites must have disabled **Snapshot Timeout** for this feature to work. If one side has not disabled **Snapshot Timeout**, the ViewStation uses the default settings.

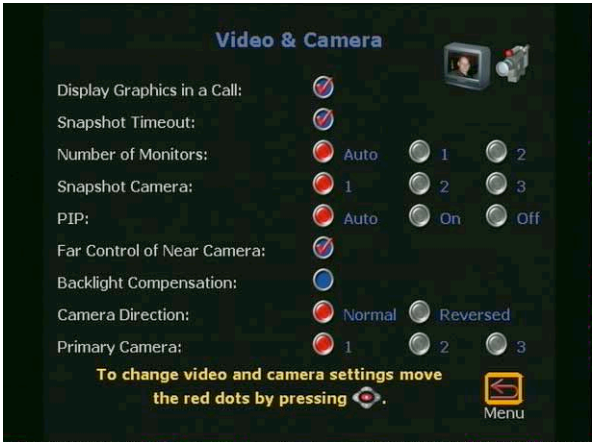

Video & Camera
Display Graphics in a Call:
Snapshot Timeout:
Number of Monitors: Auto 1 2
Snapshot Camera: 1 2 3
PIP: Auto On Off
Far Control of Near Camera:
Backlight Compensation:
Camera Direction: Normal Reversed
Primary Camera: 1 2 3
To change video and camera settings move the red dots by pressing .
Menu

Figure 2-58. Video & Camera Screen

Number of Monitors: Select the number of monitors connected to the ViewStation.

- **Auto:** The ViewStation automatically uses any additional monitors connected to the ViewStation.
- **1:** The ViewStation uses monitor number 1.
- **2:** The ViewStation uses monitor number 2.

Snapshot Camera: Select the camera used for snapshots.

- **1:** The ViewStation uses camera number 1 for snapshots.
- **2:** The ViewStation uses camera number 2 for snapshots.
- **3:** The ViewStation uses camera number 3 for snapshots.

PiP: Picture in Picture. The PiP window appears in the lower right-hand corner when making calls.

- **Auto:** The PiP window is displayed when a call is made and when the remote control is not resting on a flat surface.
- **On:** The PiP is displayed continuously.

- **Off:** The PiP is not displayed.

Far Control of Near Camera: The Far Control of Near Camera allows a user on the far site to control the camera by pressing the FAR button on the remote control.

- **Checked:** The far site may control the camera on the near site.
- **Not Checked:** The far site is unable to control the near camera.

Backlight Compensation: The backlight compensation is used in conference rooms with a light background.

- **Checked:** The camera automatically adjusts for a light background.
- **Not Checked:** The camera does not adjust for a light background. Uncheck the **Backlight Compensation** if moderate lighting is used for the ViewStation.

Camera Direction: The camera direction is used to ease camera control for two modes of videoconferencing.

- **Normal:** Normal camera direction is used when a speaker is behind the ViewStation facing an audience. When the LEFT ARROW button is pressed on the remote control, the camera moves counterclockwise and when the RIGHT ARROW button is pressed on the remote control, the camera moves clockwise.
- **Reversed:** The reversed camera direction is used for videoconferencing when the speaker is front of the ViewStation.

Primary Camera: Selects the primary camera used each time the ViewStation is powered on. The main camera does not have to be the primary camera; the ViewStation can use the camera 2 or 3 inputs as the primary camera.

- **1:** Camera 1 or the Main Camera (default)
- **2:** Camera 2 if connected to the ViewStation
- **3:** Camera 3 if connected to the ViewStation

Note AMX and Creston camera selection — If you are using AMX or Creston systems to control the ViewStation via infrared signals, the camera selection method for the remote control

has been changed to prevent ambiguous or accidental camera selection. A change to your room controller software is required.

Security

The **Security** screen (**System Info > Admin Setup > Security**) shown in Figure 2-59 is used to set the ViewStation passwords. Use of passwords is not required for the ViewStation.

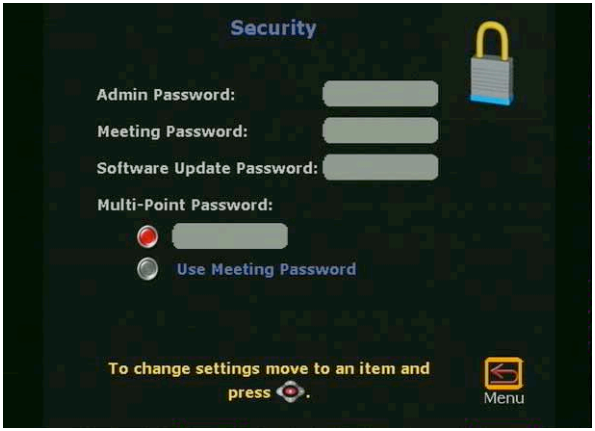


Figure 2-59. Security Screen for All Models Except V.35

Admin Password: The admin password is used to grant or restrict access to the administrative features of the ViewStation.

Meeting Password: The meeting password is used to grant or restrict access to the non-administrative features to the ViewStation Web interface.

Software Update Password: The purpose of the software update password is to prevent accidental updating of the ViewStation software from the far site. This password is automatically entered by the ViewStation from the initial setup. The software update password may be changed at any time.

Multi-Point Password: A conference password is occasionally required for a multi-point conference that uses a third-party MCU.

- **Text box**: If left blank, no multi-point password is selected. If the text box is populated, the ViewStation uses this password to connect to multi-point videoconferences.

- **Use Meeting Password:** The ViewStation uses the password (if any) previously entered in the **User Setup** screen (**System Info > User Setup**) and appears in the meeting password field in the **Security** screen (**System Info > Admin Setup > Security**).

Crypto Resync (ViewStation V.35 Only): If a cryptographic encoder/decoder is connected between the ViewStation V.35 and the network, it may require a resynchronization pulse due to a network problem.

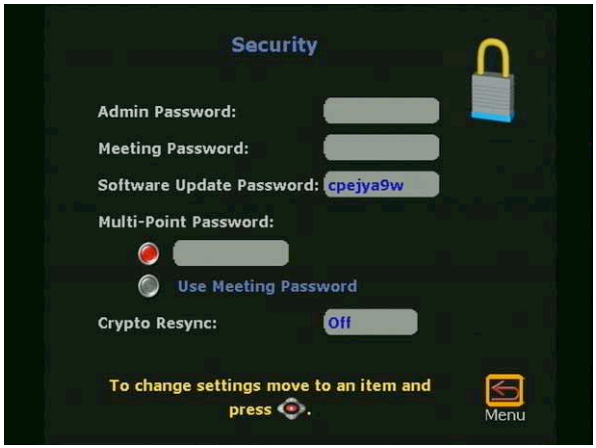


Figure 2-60. Security Screen for the ViewStation V.35

- **On:** When selected, the **Crypto Resync Pulse** screen (**System Info > Admin Setup > Security > Crypto Resync**) appears as shown in Figure 2-61.
- **Off:** The task of resynchronizing the encoder/decoder is accomplished by manual intervention.

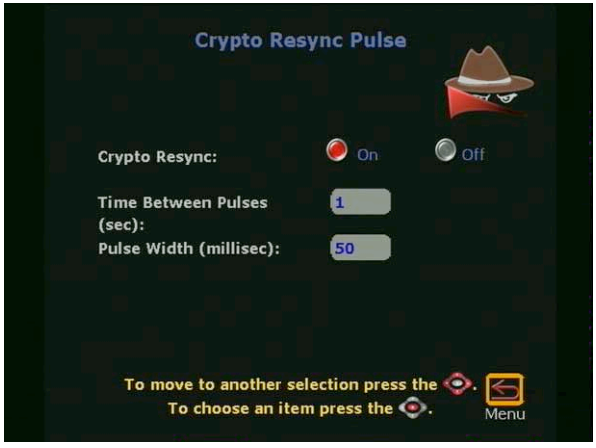


Figure 2-61. Crypto Resync Pulse Screen

On this screen you can enable crypto resync, set the time between pulses (in seconds), and set the pulse width (in milliseconds).

If the ViewStation is in a call, and it loses H.320 synchronization, it continuously sends the resynchronization pulses at the specified rate with the specified pulse width until H.320 regains synchronization.

Software / Hardware

The **Software/Hardware** screen (**System Info > Admin Setup > Software/Hardware**) is used to obtain basic information on the software and hardware profiles of the ViewStation. For ViewStations with multi-point capability, an additional **System Options** icon appears on this screen.

Software Information

The **Software** screen (**System Info > Admin Setup > Software/Hardware > Software**) provides the following information about the ViewStation:

- System Serial Number
- BOOTUI Number
- Software Version
- Network Interface Type (ISDN configured ViewStations only)

- ISDN Version (ISDN configured ViewStations only)
- ISDN Region (Non-USA ISDN configured ViewStations only)
- ISDN Switch Protocols (ISDN configured ViewStations only)

Hardware Information

The **Hardware** screen provides the following information about the ViewStation:

- System Serial Number
- FPGA Version
- Network Interface Type
- Video Comm Interface
- Camera
- MIC 1 Version
- MIC 2 Version (if present)

System Options

The **System Options** screen (shown in Figure 2-62) contains information that enables multi-point features for the ViewStation and indicates that the multi-point feature is enabled or disabled.

Key: Enter the **Multi-Point Key** to enable multi-point calling. This key is unique to each ViewStation.

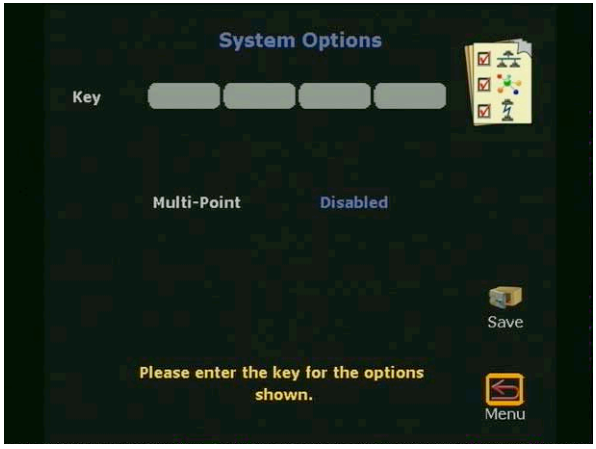


Figure 2-62. System Options Screen

3

Using the ViewStation

This chapter describes how to use ViewStation functions.

Placing and Answering Calls

This section describes how to place and answer calls using the ViewStation.

Main Calling Screen

When the ViewStation is powered ON, the **Main Calling** screen is displayed. The **Main Calling** screen is essentially the same for each ViewStation model with the exception of ViewStation type which is displayed in the upper left corner of the **Main Calling** screen. The screen for the ViewStation H.323 is shown in Figure 3-1.

Figure 3-1. ViewStation H.323 Main Calling Screen

Note When the ViewStation is initially set up or when the system has been manually reset, a series of setup screens appears to establish language, country, and system settings.

ViewStation Network Line Indicators

The ViewStation checks the configuration of the network lines every time the ViewStation is powered on or restarted. This process of checking the network lines normally takes less than one minute.

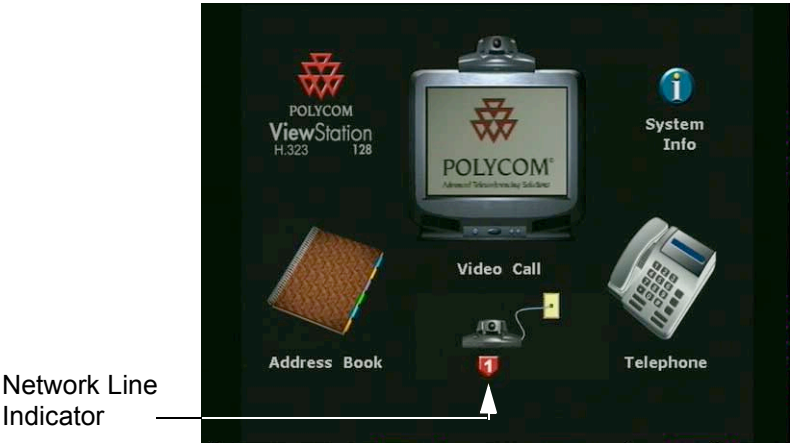


Figure 3-2. ViewStation 128 Main Calling Screen

If the network line has failed or is not properly configured, a red down arrow status indicator displays on the **Main Calling** screen (shown in Figure 3-2). When a network problem is noted, a red down arrow appears under the **ViewStation** icon. Check the network connection or contact the LAN manager.

The ViewStation with a Quad BRI or Avaya DCP may have up to four BRI or DCP lines. As the ViewStation confirms each line, status indicators are displayed on the **Main Calling** screen. Once the first ISDN line (line 1) connects, you can make a call.

The ViewStation H.323 with V.35 has two V.35 lines. As the ViewStation confirms each line, status indicators are displayed on the **Main Calling** screen. When both the V.35 status indicators turn green, you can make a call.

The ViewStation 512 MP **Main Calling** screen is shown in Figure 3-3. The ViewStation has checked and verified all four ISDN lines as indicated by the four green up arrow icons on the screen.

- A red down arrow icon indicates no network connectivity.

- A yellow box icon indicates that the ViewStation is checking the ISDN line.
- A green up arrow icon indicates network connection.

When the ViewStation verifies each line connection, the yellow box icon turns to a green up arrow. After a few seconds, all four green up arrows disappear.

Figure 3-3. ViewStation Main Calling Screen (512 MP Shown)

If the ViewStation is checking the status of the network lines and the icons do not disappear, check the connection of the ViewStation and the configuration of your network lines.

Note:

1. Early model ViewStations contained hardware that was network specific. A replacement ViewStation is required if a V.35 or DCP network interface module does not function correctly or the ViewStation fails to detect the network interface module.
2. If the cable from the ViewStation to the V.35 interface adapter exceeds 100 feet or 30 meters, the resistance in the cable is not sufficient to obtain a network connection.

Placing a Video Call

There are four ways to place a video call:

- Placing a Video Call Manually, on page 100.
- Placing a Video Call Using Speed Dial, on page 102.

- Placing a Video Call From the Web Interface, on page 104.
- Placing a Video Call Using the Address Book, on page 111.

Placing a Video Call Manually

To manually place a video call:

1. From the **Main Calling** screen, use the ARROW buttons on the remote control to select the **Video Call** icon. Press the SELECT button on the remote control. The **Video Phone** screen is displayed.

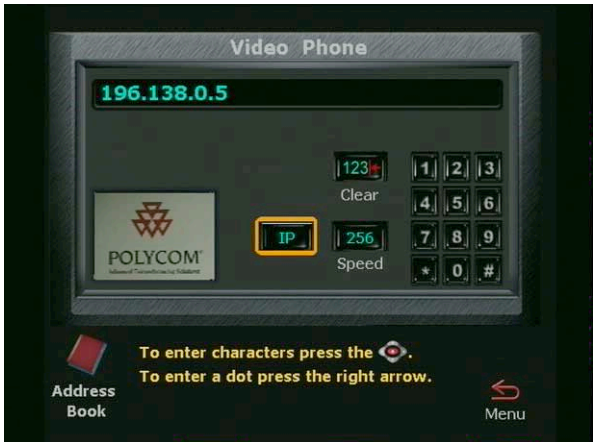


Figure 3-4. Video Phone Screen

2. On the numeric keypad on the remote control, enter the IP address, the DNS name, and the H.320 phone number or V.35 number for the far site end-point. For example:
   - **216.54.148.6** or **lobby.austin.polycom.com**. (H.323)
   - **1 512 555 2593** (H.320)
   - **15125551212** (V.35)

   Select the desired speed and type of call.

Note For H.320: If the far site endpoint if it is within the same PBX system. Enter the last four digits of its number.

To clear all information in the address field:

- Use the ARROW buttons on the remote control to select the CLEAR button.
- Press the SELECT button on the remote control.

Call Progress Indictors: The gray call progress indicators on the lower left side of the screen appear when a video call is initiated from the ViewStation and indicate the status of the call. The change in the call progress indicator balls represent the status as the call is being placed. The status indicators appear in the following order:

Icon	Appearance	Indication
	1/4 Blue	Ringing
	1/2 Yellow	Call connected, ringing at the far site.
	3/4 Orange	Call is in negotiation with far site.
	Full Green	Connected

3. The ViewStation continues to ring until the call is answered or is manually disconnected.
4. If there is no answer from the far site, press the CALL•HANG-UP button on the remote control to end the call. If the call did not connect, the ViewStation disconnects immediately, If the video call connects the **Call Hangup Choices** screen with the following options displayed:
   - Disconnect Video Call
   - Stay In a Call
   - Add Speakerphone

   Select the **Disconnect Video Call** icon and press the SELECT button on the remote control.
5. After a call connects, a PiP window appears in the lower right corner of the television monitor. If two television monitors are used, the far site displays on the second monitor.
6. To end the call, press the CALL•HANG-UP button on the remote control.

The **Call Hangup Choices** screen is displayed.

Figure 3-5. Call Hangup Choices Screen

Note Figure 3-5 shows call hangup options for ViewStations without multi-point enabled software.

- Multi-point enabled ViewStations have an additional option to place a multi-point call.
- The ViewStation 128 with does not have an option to add a speaker phone conference to the video call.

7. Select the **Disconnect Video Call** icon and press the SELECT button on the remote control.

Note The call automatically terminates after 60 seconds if no choice is made from the **Call Hangup Choices** screen.

8. When the call ends, the ViewStation displays a dialog box that allows you to save the number in your address book. Once the number is saved to your address book, this dialog box does not appear.

Placing a Video Call Using Speed Dial

Use the speed dial feature to redial the last six dialed video call numbers. Before a number is available for speed dialing, the number must be in the address book.

To place a speed dial call:

1. From the **Main Menu**, use the ARROW buttons on the remote control to select the **Address Book** icon. The **Speed Dial** screen (Figure 3-6) is displayed when the SELECT button is pressed.

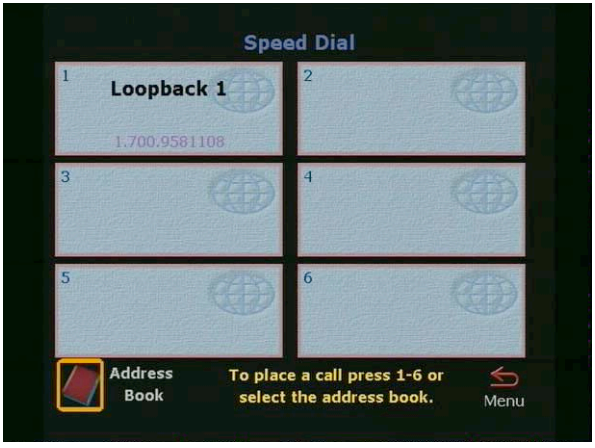


Figure 3-6. Speed Dial Screen

2. The **Speed Dial** screen displays a maximum of six speed dial entries. There are two ways to select an entry listed on the **Speed Dial** screen:
   - Use the remote control's numeric keypad to select the number of the speed dial entry you want to dial. The speed dial entry's number appears at the top left corner of the entry.
   - Use the ARROW buttons on the remote control to highlight the desired speed dial entry corresponding to the number of the speed dial entry, and press the SELECT button on the remote control.

   To keep a specific entry on the **Speed Dial** screen, do the following:

   1. Select a number 1-6.
   2. Press the **#** button on the remote control. A **Lock** icon appears on the right side of the box for that number.
   3. Press the **#** button to toggle between locked and unlocked.

   Complete the following steps to add an entry from the address book to the **Speed Dial** screen:

1. Press the * button on the remote control to jump to the **Address Book** screen.
2. On the **Address Book** screen, select the appropriate entry.
3. Press the SELECT button on the remote control.

Placing a Video Call From the Web Interface

Placing a call from the web interface can only be done if the ViewStation is connected to a PC. See *"Placing a Call from the ViewStation Web Interface"* on page 150.

Using the Address Book

Similar to a hardcopy address book or a software product's address book, the ViewStation provides an address book to store access names and numbers. With entries stored in the address book, a video call may be placed by name, instead of remembering or looking up a number and then manually dialing it. The ViewStation address book may hold up to 1000 entries. If your organization uses Polycom's Global Management System™ (GMS) software, you can configure the address book to automatically show all of the addresses that your organization uses.

This section includes:

- Adding New Entries to the Address Book, on page 104
- Editing an Existing Entry in the Address Book, on page 107
- Deleting an Entry from the Address Book, on page 108
- Transferring an Address Book, on page 109

Adding New Entries to the Address Book

To add an entry to the address book:

1. From the **Main Calling** screen, select the **Address Book** icon.

   The **Speed Dial** screen is displayed when the SELECT button is pressed on the remote control.

Note The **Speed Dial** screen does not appear if the ViewStation's address book entries have been deleted or the ViewStation is recently installed from out of box.

2. Highlight the **Address Book** icon on the **Speed Dial** screen and press the SELECT button again. The **Address Book** screen is displayed.

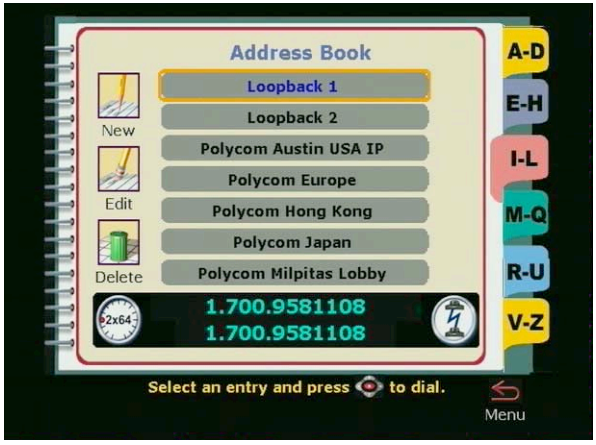


Figure 3-7. Address Book Screen

3. To display the **Add/Change Entry** screen, select the **New** icon and press the SELECT button on the remote control.

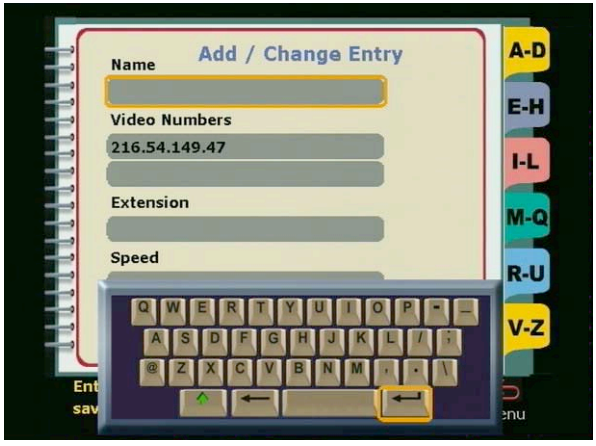


Figure 3-8. Add / Change Entry Screen

Note For ViewStations without multi-point enabled software, skip to step 9.

4. For ViewStations with multi-point: Highlight the **New** icon and press the SELECT button on the remote control. The **New Address Book Entry** screen appears (Figure 3-9.)

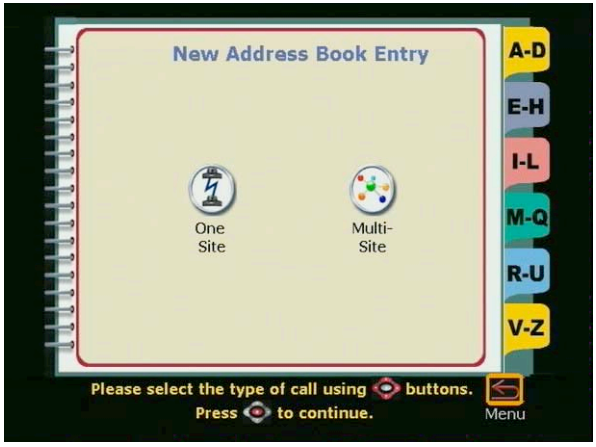


Figure 3-9. New Address Book Entry Screen for ViewStations with MP

5. If this new address book entry is only for a single site, highlight the **One Site** icon and continue with step 7. If the new address book entry is used to place video calls to a group, highlight the **Multi-Site** icon and press the SELECT button on the remote control.
6. Enter the name of the group in the NAME text field as shown in Figure 3-10.
7. Choose the desired speed.
8. Choose the parties to be included with the group from the address book entries.

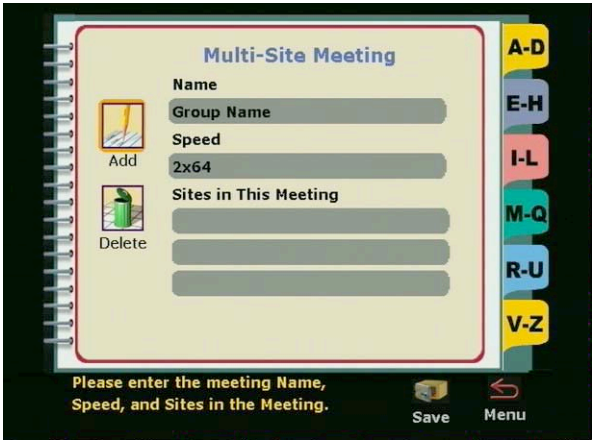


Figure 3-10. Multi-Site Meeting Screen

9. The yellow highlight box automatically appears in the **Name** field. A name must be entered before any additional information can be entered.

   Use the ARROW buttons on the remote control to move to a letter on the keyboard. Press the SELECT button on the remote control to select that letter. The letter selected is displayed in the **Name** field. Continue selecting letters until finished. Use the space bar on the keyboard to insert a space.

   When the first letter is entered or a letter is entered after selecting a space, the letter is automatically entered in uppercase. Subsequent letters are in lowercase. If a specific letter is to be capitalized, first move to the **Shift** key, which is on the lower left of the keyboard and is signified by an up arrow.

   Select the **Shift** key. Then move to and select the next letter. That letter is displayed in uppercase.

   For shift-lock, highlight the **Shift** key and press the select button on the remote control twice.

Editing an Existing Entry in the Address Book

To edit an existing entry in the address book:

1. From the **Main Calling** screen, select the **Address Book** icon and press the SELECT button on the remote control. The **Speed Dial** screen is displayed.

2. Select the **Address Book** icon on the **Speed Dial** screen and press the SELECT button again. The **Address Book** screen is displayed.
3. Using the ARROW buttons on the remote control, select the address book entry to be changed.
4. Use the LEFT ARROW button on the remote to select the **Edit** icon. Press the SELECT button on the remote control. The **Add/Change Entry** screen is displayed.
5. Use the ARROW buttons on the remote control to select the field to be changed.

   If the on-screen keyboard is not displayed, press the SELECT button on the remote control.

   To enter numbers, use the remote control. To enter letters, spaces, and punctuation, use the on-screen keyboard. To enter a dot, press the RIGHT ARROW button on the remote control.
6. To save the changes, select the **Save** icon and press the SELECT button on the remote control.

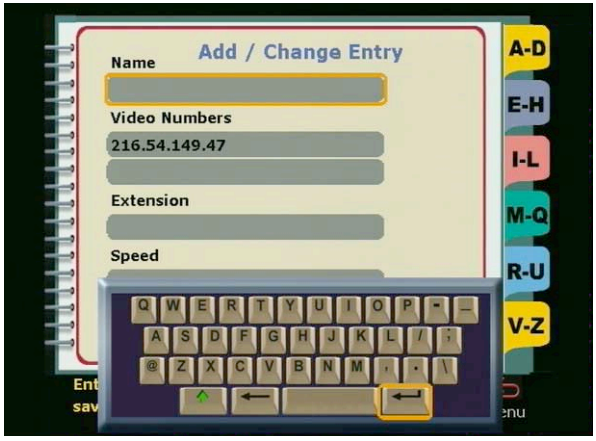


Figure 3-11. Add / Change Entry Screen

Deleting an Entry from the Address Book

To delete an existing entry from the address book:

1. From the **Main Menu**, select the **Address Book** icon and press the SELECT button on the remote control. The **Speed Dial** screen is displayed.

2. Select the **Address Book** icon on the **Speed Dial** screen and press the SELECT button again. The **Address Book** screen is displayed.
3. Using the ARROW buttons on the remote control, select the address book entry to be deleted.
4. Use the LEFT ARROW button on the remote control to move to the **Edit** icon.
5. Use the DOWN ARROW button on the remote control to move to the **Delete** icon. Press the SELECT button on the remote control to delete the entry.

Transferring an Address Book

To transfer the contents of your ViewStation address book to a far site ViewStation, both ViewStations must be in an H.320 call to a single H.320 end point. To transfer the contents of the address book:

1. Select **System Info > Admin Setup > Software/Hardware**.
2. Select the **Send Address Book** icon.
3. If passwords are used on either the far site or near site ViewStation, enter the farsite ViewStation's password in the **Software Update Security Password** field. This password must be the same as entered on the far site ViewStation **Security** screen (**System Info > Admin Setup > Security**).

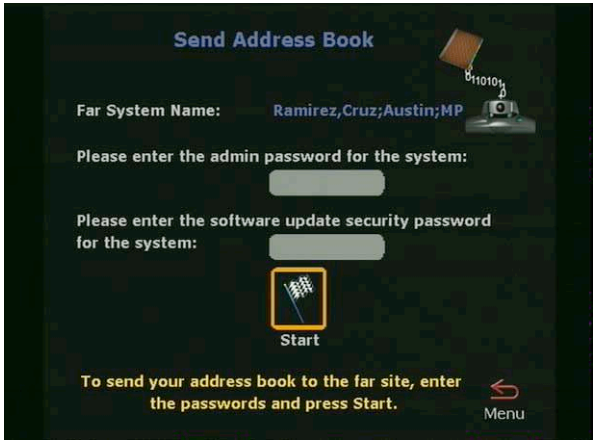

Send Address Book
Far System Name:
Ramirez,Cruz;Austin;MP
Please enter the admin password for the system:
Please enter the software update security password for the system:
Start
To send your address book to the far site, enter the passwords and press Start.
Menu

Figure 3-12. Send Address Book Screen

Using the Global Address Book

You can access the Global Address Book (GAB) if your organization uses **Polycom's Global Management System**™ (GMS) software and the ViewStation is set to subscribe to the GAB server. The GAB provides ViewStation users with easy, one-button dialing to an endpoint in the global address book. The GAB automatically captures and updates ViewStation dialing information, country codes, and preferred line speeds.

To place a call, select a name from the **Address Book** list.

The following icons on the **Address Book** screen indicate GAB status and individual address status.

The display of this icon indicates the ViewStation is connected to the GAB server. When the icon rotates, it indicates that the ViewStation is actively accessing the GAB server for addresses. Notice the icon rotating as you scroll through the address book entries.

This icon indicates that the selected address is an address from the GAB. You cannot edit or delete global addresses from your ViewStation. You can perform these tasks only from the GAB console.

This icon lets you save a global address entry to your local address book.

This icon lets you delete addresses from the ViewStation.

For more information about GMS software, see the **Polycom** Web site at **www.polycom.com**.

Using Multi-Point Address Book Entries

Adding multi-point entries into the ViewStation MP address book or the GAB allows the ViewStation to call several sites at one time using one address book entry.

If you delete a single site entry from the address book and that entry is part of a multi-point address book entry, the multi-point address book entry is automatically deleted from the address book.

Creating a multi-point address book entry:

1. From the **Main Menu**, highlight the **Address Book** icon and press the SELECT button on the remote control. The **Speed Dial** screen is displayed.
2. Highlight the **Address Book** icon on the **Speed Dial** screen and press the SELECT button again. The **Address Book** screen is displayed.
3. Using the ARROW buttons on the remote control, select the **New** icon and press the SELECT button on the remote control. The **New Address Book Entry** screen is displayed.
4. Select the **Multi-Site** icon and press the SELECT button on the remote control. The **Multi-Site Meeting** screen is displayed.
5. Using the on-screen keyboard, enter a name for the meeting in the **Name** field.
6. Select a dialing speed for the call. The ViewStation dials all of the sites in the multi-point call at the speed you specify regardless of the dialing speed set for the individual address book entries.
7. To add entries from the address book to the multi-point address book entry, click the **Add** icon. The **Add To Meeting** screen is displayed.
8. Select the address book entry you want to add and press the SELECT button on the remote. The **Multi-Site Meeting** screen is displayed with the added entry.
9. Repeat steps 7 and 8 until you have specified all of the sites for the multi-point address book entry.
10. Click the **Save** icon and press the SELECT button on the remote control. The **Address Book** screen is displayed.

Placing a Video Call Using the Address Book

The ViewStation's address book provides a fast and easy way to place a call, and to store names and numbers. To place a video call using the address book:

1. From the **Main Calling** screen, select the **Address Book** icon and press the SELECT button on the remote control. The **Speed Dial** screen is displayed.
2. From the **Speed Dial** screen, select the **Address Book** icon. The **Address Book** screen is displayed when the SELECT button on the remote control is pressed.

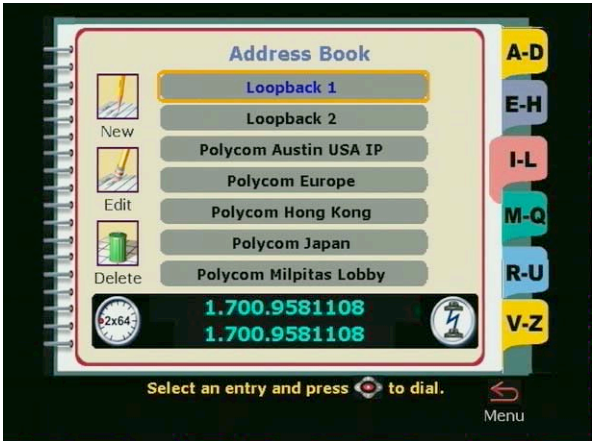


Figure 3-13. Address Book Screen

3. On the **Address Book** screen, select the entry to be dialed using the remote control.

   To easily access the address book entries, select the letter (and number) on the remote control that corresponds to the first letter of the name of the person or party you wish to call. For example, to locate Mr. Thomas, press the number 8 on the numeric keypad of the remote control. The letter T corresponds to the number 8 on the telephone. When 8 is selected, the ViewStation displays the “T” section of the address book.

   Press the SELECT button on the remote control to place the call. The ViewStation automatically dials the number.

4. The call name, number, and call speed are displayed at the top of the screen. On the lower left side of the screen, a call progress indicator shows the connection progress. The indicator changes from blue to yellow to orange, and finally to green when the call completes.

Placing a Video Call from the Web Interface

Placing a call from the Web inferface can only be done if the ViewStation is connected to a PC. See *“Placing a Call from the ViewStation Web Interface”* on page 150.

Placing Telephone Calls with the ViewStation

In countries that use the North American POTS standard, connect an analog telephone line to the back of the ViewStation.

With a POTS line, you can use the ViewStation to:

- Make an audio telephone call
- Add a third-party audio call to a video call
- Add a video call while in an audio telephone call

The following sections describe how to make these calls

Placing a Telephone Call

To place a telephone call using the ViewStation, the ViewStation must first be connected to a standard POTS or PBX wall jack. See the ViewStation *Quickstart* card for more information. To make a call:

1. From the **Main Calling** screen, highlight the **Telephone** icon and press the SELECT button on the remote control.

   The **Telephone** screen is displayed.

Telephone
123
Flash
Clear
1 2 3
4 5 6
7 8 9
* 0 #
To dial a telephone call use the number pad on the remote control and press . To disconnect a telephone call press .
Menu

Figure 3-14. Telephone Screen

2. Using the numeric keypad on the remote control, enter the phone number of the party to be called. If dialing within a PBX system, enter the extension number typically used within your PBX system.

To delete the right-most digit, press the LEFT ARROW button on the remote control.

To clear all information in the number field, use the ARROW buttons on the remote control and select the CLEAR button.

3. To place the call, press the CALL•HANG-UP button on the remote control. If you only hear the numbers being dialed and no one answers or there is no dial tone, make sure you have the telephone cable properly connected to the back of the ViewStation.
4. To disconnect from the call, press the CALL•HANG-UP button on the remote control. The phone image appears to be on-hook.

Answering a Video Call

There are two separate modes for answering video calls:

Manual

When the ViewStation receives an incoming call, a dialog box is displayed asking the user whether or not the call is to be answered. To answer the call, select YES. To refuse the call, select NO.

Auto-Answer

By default, the ViewStation automatically answers any incoming call. To change the answering mode, go to the **General Setup** screen (**System Info > Admin Setup > General Setup)**. In the **Auto Answer** field, place a check mark to enable automatic answering. To use manual answering mode, the **Auto Answer** field must be unchecked.

Placing Multi-Point Calls (ViewStation MP Only)

You can place multi-point calls only if you have a ViewStation with Multi-point capability enabled.

A multi-point call is a video call that involves more than two parties. With multi-point calling, up to four parties can participate in a video call at one time. All parties in the call must be connected at the same speed.

You can place multi-point calls manually by adding sites to the video call. You can also create multi-point address book entries, which contain several single address book entries combined together. With a multi-point address book entry, you can call all of the parties defined in the entry at once, rather than manually calling each individual site.

Occasionally a multi-point password is required for a multi-point video call that uses a third-party MCU. To use a password, you must configure the ViewStation to send the password to the MCU.

To manually place a multi-point video call:

1. Place a video call using one of the four ways listed in *"Placing a Video Call"* on page 99.
2. When the video call has connected, press the CALL•HANG-UP button on the remote control. The **Call Hangup Choices** screen is displayed.
3. Select the **Add a Video Call** icon and press the SELECT button on the remote control. The **Video Phone** screen is displayed.
4. On the **Video Phone** screen, enter the number of the next party you want to call. Press the CALL•HANG-UP button on the remote control. The second video call is dialed.
5. Repeat steps 2 through 4 until all of the parties are connected.

To place a multi-point video call using a multi-point address book entry:

1. From the **Main Calling** screen, select the **Address Book** icon and press the SELECT button on the remote control. The **Speed Dial** screen is displayed.
2. From the **Speed Dial** screen, select the **Address Book** icon and press the SELECT button on the remote. The **Address Book** screen is displayed.

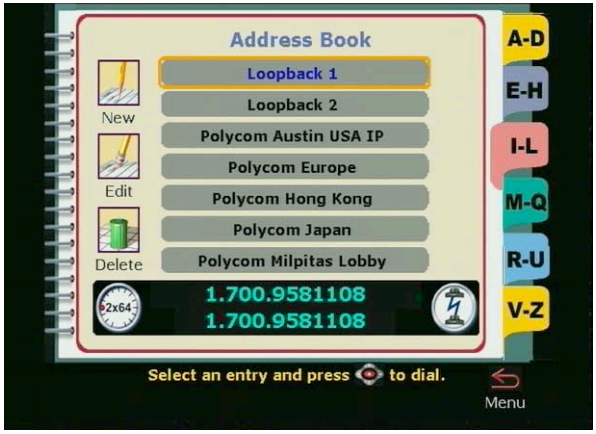


Figure 3-15. Address Book Screen

3. On the **Address Book** screen, use the up and down arrow buttons on the remote control to select the multi-point entry you want to call. Press the SELECT button on the remote control to place the call. The ViewStation automatically dials the numbers.
4. To end your call, press the CALL•HANG-UP button on the remote. The **Call Hangup Choices** screen is displayed. Select the **Disconnect Video Call** icon and press the SELECT button on the remote.

   If you stay on the **Call Hangup Choices** screen for more than 60 seconds without making a selection, the call automatically disconnects.

Adding a Telephone Call to a Video Call

In countries that use the North American POTS standard, you can connect an analog telephone line to the back of the ViewStation and add a third-party audio call to a video call.

To add a telephone call to a video call:

1. Once your video call is connected, press the CALL•HANG-UP button on the remote control.

   The **Call Hangup Choices** screen is displayed (as shown in Figure 3-17.)

2. Select the **Add Speakerphone** icon and press the SELECT button on the remote. The **Telephone** screen is displayed.

Telephone
123
Flash
Clear
1 2 3
4 5 6
7 8 9
* 0 #
To dial a telephone call use the number pad on the remote control and press . To disconnect a telephone call press .
Menu

Figure 3-16. Telephone Screen

3. Use the numeric keypad on the remote control to enter the telephone number of the new party. Press the SELECT button on the remote control.
4. When the telephone connects, press either the NEAR or FAR button on the remote control to return to the video call.
5. If you have enabled three-way calling from your local telephone company, you can obtain another line and add another telephone call to your video call. Select the **Flash** icon on the **Telephone** screen and press the SELECT button on the remote. Enter the telephone number of the second person you are calling and press the SELECT button on the remote control.
6. To disconnect from the telephone call, press the CALL•HANG-UP button on the remote control.

   On the **Call Hangup Choices** screen, select the **Disconnect Speakerphone** icon and press the SELECT button on the remote control.

Figure 3-17. Call Hangup Choices Screen

Multi-Point Viewing Modes

You can select four different viewing modes for the multiple sites in a multi-point call:

- Automatic (Auto)
- Discussion
- Presentation
- Full Screen

The default viewing mode is Automatic (Auto), which automatically switches between Discussion and Presentation modes, depending on the conversational style of the multi-point call. Below is a description of each mode:

Auto: In Auto mode, the ViewStation determines the optimal viewing mode based on the interaction between the sites in the video call. If more than one site is talking at the same time, the ViewStation uses Discussion mode. If one site is talking uninterrupted, the ViewStation uses Presentation mode. The ViewStation takes about 15 seconds to decide whether there is a single presenter before it switches to Presentation mode. If one of the far sites interrupts the presenter for several seconds during Presentation mode, the ViewStation immediately switches to Discussion mode.

Discussion: In Discussion mode, all of the sites in the video call can see everyone in the call at the same time. This feature is sometimes referred to as *Continuous Presence*. If using one television monitor with the ViewStation, when the call connects, each site is displayed on the screen in a separate window. The near site appears in the picture-in-picture (PIP) window at the lower right of the screen. If two television monitors are used in a four-way video call (yourself and three sites), you appear on the second television monitor. The far sites appear in three separate windows on the first television monitor. If you are using two television monitors in a three-way video call, each far site appears full-screen on each of the two monitors, and you appear in the PIP window on the main television monitor.

Presentation: In Presentation mode, which is also called *voice-activated switching*, the person who is speaking appears full screen to the far sites. If you are using one television monitor, the speaker appears full screen on your monitor. Your picture automatically appears in the PIP window when you raise the remote control. If you are using two television monitors, the person who is speaking appears on the main television monitor. The other sites appear in separate windows on the second television monitor.

Full-Screen: In Full-Screen mode, the speaker appears full screen to all sites. You can easily switch viewing modes either before or during a multi-point call. To switch modes:

1. If you are currently in a multi-point call, press the MENU button on the remote to go to the **Main Calling** screen.
2. Select **System Info > Admin Setup > Video Network > Multi-Point Setup** to display the **Multi-Point Setup** screen.
3. Select Auto, Discussion, Presentation, or Full-Screen mode.
4. Press the MENU button on the remote control until you return to the **Main Menu**.

Using Chair Control in a Multi-Point Call

Chair control is a feature that lets any non-multi-point enabled ViewStations:

- Select which sites to view
- Select which site broadcasts its video to all other sites
- Disconnect sites from a multi-point call

Any site in the call can access and use chair control. However, only one site can have chair control at a time. The site must release chair control before another site can acquire it.

To use chair control, you must first be participating in a multi-point video call. Once you are in the call:

1. Press the NEAR button on the remote control. Select the **Gavel** icon to display the **Chair Control** screen:

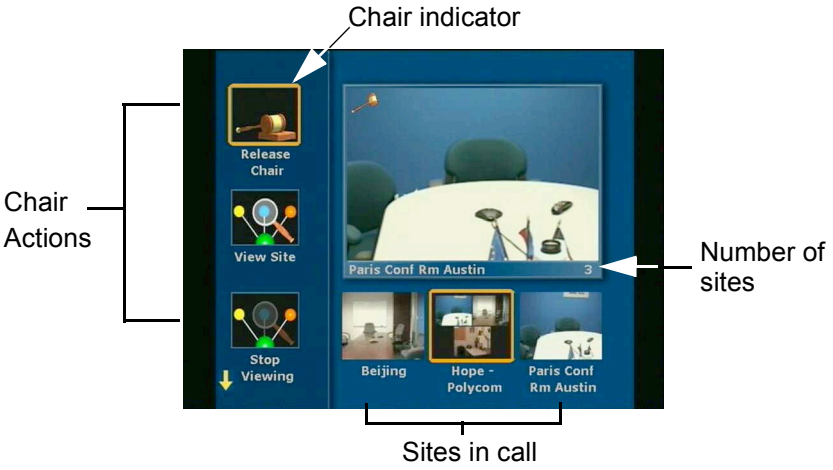


Figure 3-18. Chair Control Screen

2. The icons on the left are chair control actions. The bottom right-center icons are the sites in the multi-point video call.

   To select sites in the video call, use the right and left arrow keys on the remote control. If there are more than three sites in the call, scroll to the right to see the additional sites.

   To select the actions to perform on the highlighted site, use the up and down arrow keys on the remote control.

   There are several chair control actions that any site in the multi-point call can perform. There are other chair control actions that only the site that currently has chair control can perform.

   The following topics describe the different actions.

Actions Any Site Can Perform

Any site in a multi-point video call can perform the following chair control actions:

Acquire chair: Enables chair control for your site. The other sites in the video call cannot acquire the chair until you release it. If your site has chair control, a small gavel is displayed in chair control mode. If you try to acquire chair control while another site has it, a message is displayed that tells you another site has chair control.

View Site: Displays the selected site in the live window. The View Site action overrides Presentation mode (voice-activated switching) and any broadcaster actions from the chair. It does not affect video at other sites.

Stop Viewing Site: Causes your ViewStation to return to Presentation mode (voice-activated switching) or broadcaster actions as set by the site that has chair control.

Make Me the Broadcaster: Sends a request to the chair control site to force all sites to view your site.

Actions Only The Chair Control Site Can Perform

The site with chair control only can perform the following chair control actions:

Release Chair: Disables chair control for your site. Another site in the multi-point video call can now acquire the chair.

Select Broadcaster: Forces all sites to view the selected site, and disables Presentation mode (voice-activated switching).

Voice Switching: Enables Presentation mode (voice-activated switching). The site that is speaking appears full screen to all sites in the call.

Disconnect Site: Disconnects the selected site from the multi-point call.

End the Conference: Disconnects all sites in the multi-point call.

Using a ViewStation with a StreamStation

The StreamStation is designed to integrate with the ViewStation graphical user interface. See *"StreamStation Configuration"* on page 211 for setup and configurations information.

Once the systems have been configured, the following features are available on the ViewStation:

Starting a Webcast

Figure 3-19. Main ViewStation Menu with StreamStation Icon

1. From the main menu using the ViewStation remote control, select the new **Call Type** icon.

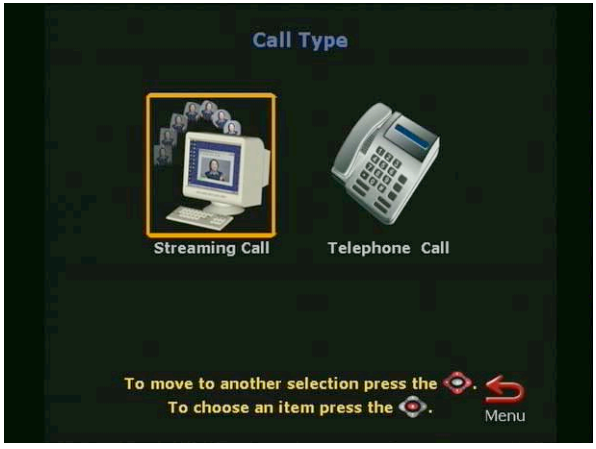


Figure 3-20. Call Type Screen

2. Select the **Streaming Call** icon.

To view a Webcast from a computer, refer to the *"Viewing a Webcast"* section located on the **Polycom StreamStation** website (http://streamstation.polycom.com/documentation/.)

Figure 3-21. Streaming Call Screen

3. The Streaming Call screen has the following options:

   Please create the Streaming Video Password: This option is used to limit entry to view a Webcast. Passwords are not required to view a streaming call.

   Allow viewers to Submit Questions: Deselect this icon to disallow Webcast viewers to submit questions during the meeting.

   Record meeting: To record a meeting, select the **Record meeting** check box.

   Meeting Name: A Meeting Name is required which is listed on the StreamStation Web page after the meeting is finished.

   Password: Enter a Password to restrict Web playback access.

4. Select the **Start** icon to begin the live Webcast.

Ending a Webcast

1. From the main menu using the ViewStation remote control, select the new **Call Type** icon.

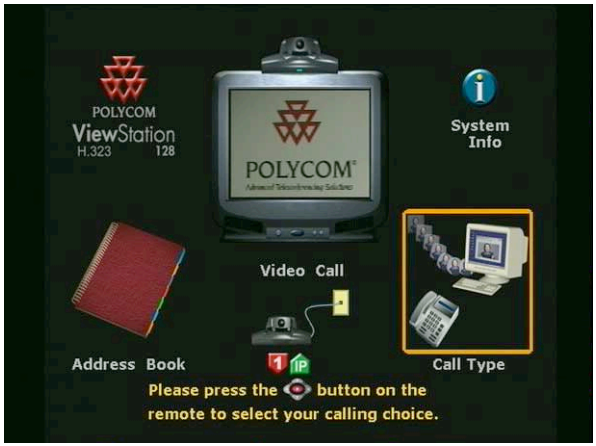


Figure 3-22. ViewStation Main Menu with StreamStation

2. Select the **Stop Streaming** icon. Once the streaming has stopped, all Webcast viewers are notified that the meeting has ended.

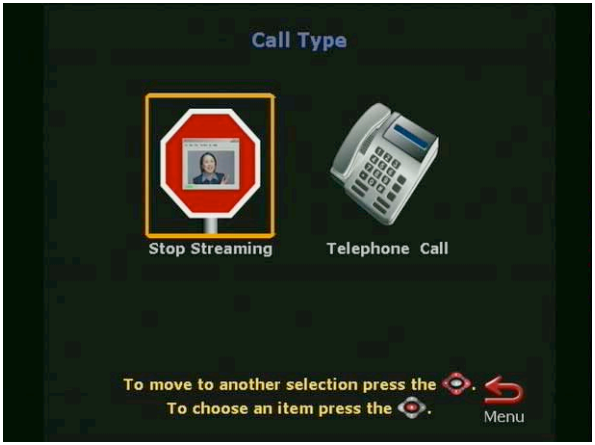


Figure 3-23. Call Type Screen When in a Call.

Displaying ChatBack™ Messages

Web browser participants can send ChatBack™ text messages to the ViewStation to ask questions and make comments during a live Webcast. ChatBack messages automatically appear on the

ViewStation monitor. The conference room users can respond to questions and comments by talking into the ViewStation microphone pod. Responses can be heard by streaming participants.

Note ChatBack messages only appear on the ViewStation monitor for a short period of time. Any new ChatBack message replaces a previous message on the monitor. For example, if multiple users send messages simultaneously, only the most recent message is displayed.

Adjusting Cameras and Sound

This section describes how to adjust the cameras and sound properties on the ViewStation, and includes the following:

- Selecting ViewStation Cameras, on page 125
- Pan, Tilt, and Zoom for the ViewStation Camera, on page 127
- Setting Camera Presets, on page 127
- Automatic Voice Tracking, on page 128
- Automatic Tracking of Camera Presets, on page 128
- Adjusting Sound, on page 129
- Positioning Microphone Pods, on page 129

Selecting ViewStation Cameras

Before a camera can be panned, tilted, or zoomed, the target camera must be selected complete the following step to adjust the near site camera:

1. Press the NEAR button on the remote control.
2. Select 1 or 2 for the desired camera.

The ViewStation displays the camera's current view full screen on the television monitor. A **Camera** icon facing toward you is displayed at the top right of the screen.

Figure 3-24. Camera Near Icon

During a call, the camera at the far site may be adjusted only if the far site has its **Far Control of Near Camera** option enabled. Other sites can control the camera on your ViewStation if this option is enabled. For more information, see *"Video/Camera"* on page 90.

To select the far-site camera during a call:

1. Press the FAR button on the remote control.
2. Select 1, 2, 3, or 4 for the desired camera.

The ViewStation displays the camera's current view fullscreen on the television monitor. A **Camera** icon facing away from you is displayed at the top right of the screen.

Figure 3-25. Camera Far Icon

To select another local camera:

1. Press the NEAR button on the remote control twice. At the bottom of the screen, the ViewStation displays the icons for all of the connected local cameras.

Note The main camera cannot be disconnected. However, a primary camera, such as a document camera, may be set as the camera the ViewStation uses each time it is powered

on. For more information about selecting a primary camera, see *"Video/Camera"* on page 90.

Pan, Tilt, and Zoom for the ViewStation Camera

To adjust the pan or tilt of a camera, use the ARROW buttons on the remote control.

- To pan to the left, press the LEFT ARROW button.
- To pan to the right, press the RIGHT ARROW button.
- To tilt up, press the UP ARROW button.
- To tilt down, press the DOWN ARROW button.

To zoom in, press the top (+) of the ZOOM button on the remote control.

To zoom out, press the bottom (–) of the ZOOM button on the remote control.

These adjustments comply with the **Camera Direction - Reversed** option as described in *"Video/Camera"* section beginning on page 90.

Setting Camera Presets

The ViewStation can be set to store up to ten preset camera positions and zoom settings for up to four near site cameras and the main far site camera. To set a preset:

1. Use the FAR or NEAR buttons on the remote control to select the near or far site camera.
   - Press the FAR button twice to display 10 preset icons for the FAR camera.
   - Press the NEAR button once to display 10 preset icons for the NEAR camera.
2. Position the camera using the ARROW buttons and the ZOOM control on the remote control.
3. Press the SELECT button on the remote control.

   The camera preset circles are displayed on the main television monitor:
   - 0-9 for the far camera
   - 0-9 for the near camera

The following table applies to camera presets:

Preset Indication	Meaning
Transparent	Preset is empty
Solid Yellow	Preset is assigned

To clear all of the presets, press the **#** key on the remote control.

4. Press a NUMBER button on the remote control to assign that preset button.

To select a camera preset:

1. Use the NEAR or FAR buttons on the remote control to determine which camera preset to activate.
2. Immediately press the appropriately numbered button on the remote control.

Automatic Voice Tracking

The main camera automatically moves to whoever is speaking during a video call. The ViewStation requires a few seconds to locate the speaker and once the ViewStation has located the speaker, the ViewStation sets his/her position and moves the camera automatically. If the speaker moves or a new speaker is introduced, the ViewStation adjusts for the current speaker.

To set automatic voice tracking:

1. Press the AUTO button once to turn auto tracking on.
2. Press the AUTO button twice to turn auto tracking off.

A **Camera** icon with a motor attached is displayed in the upper right corner of the main television monitor.

Automatic Tracking of Camera Presets

The main camera automatically tracks to preset positions. To set the camera to track to camera presets:

1. Press the AUTO button twice to set auto tracking mode.
2. Press the AUTO button once to turn automatic tracking off.

Pressing AUTO cycles through Voice Tracking, Presets, and Off.

Adjusting Sound

The volume of the ViewStation is related to the volume of the television monitor. For best results:

1. Set the volume on the television monitor to half its maximum volume.
2. Using the VOLUME buttons on the remote control, set the ViewStation volume at a comfortable hearing level.

To prevent far-site participants from hearing your conversation, press the MUTE button on the remote control or press the button on top of the microphone pod. The red light on top of the microphone pod is illuminated. When the MUTE button is pressed, the **Mute** icon is displayed at the bottom left of the television monitor at both the far and near sites.

Positioning Microphone Pods

Place the microphone pods in front of the video call participants.

Excessive feedback may occur if the microphone pods is positioned too close to the audio output of the ViewStation. Place the microphone pod 5 feet or 1.5 meters away from television speaker and within 5 feet or 1.5 meters of the video call participants.

If a large conference room is used, ensure that all participants are within 10 feet or 3 meters of the microphone pods. One additional microphone pod can be connected in series. An additional microphone pod can be purchased from the **Polycom** Website.

Sending Snapshots

The ViewStation's snapshot feature transmits snapshots from any local camera to the participants in a video call.

To send a snapshot:

1. Press the number on the remote that corresponds to the number of the camera on the screen.
2. Position and zoom the camera as needed.
3. Press the SNAPSHOT button on the remote control.

4. The ViewStation displays the camera's current view, full screen, on the television monitor.
5. Press the SNAPSHOT button on the remote control again. The image is sent to all of the far sites in the call.

Snapshot Timeout

By default, snapshots are displayed for four minutes. After four minutes, the ViewStation automatically returns to live video. This feature may be disabled. When disabled, the snapshot display on the television monitor remains indefinitely or until the SNAPSHOT button on the remote control is pressed.

To display the snapshot indefinitely, both the near and far sites in the video call must disable the snapshot timeout feature. The snapshot timeout feature is located on the **Video & Camera** screen (**System Info > Admin Setup > Video & Camera**.)

Using Optional Equipment

Adding optional equipment to the ViewStation enhances video communications and presentation quality. For instructions on installing optional equipment, see the *ViewStation QuickStart* card for your ViewStation system. The following optional equipment may be used with the ViewStation.

Monitors: A second television monitor may be added to the ViewStation to provide a wider range of display options.

Camera: An additional camera may be added to provide continuous video of different speakers in the same room.

VCR: A VCR may be added to record the videoconference or to present recorded material as part of a video call. The VCR records video from the near site's main television monitor and audio from both the near and far sites. When playing a tape, the VCR provides audio and video to all participants in a video call.

Visual Concert DC: The Visual Concert™ DC document camera lets you send high quality, high resolution pictures from a ViewStation. The images are displayed to the videoconference participants at the near and far sites.

To use a document camera with the ViewStation:

1. Press the NEAR button twice on the remote control.

2. Use the ARROW buttons to select the **Document Camera** icon on the screen.

To switch display from the document camera to the main camera, press the NEAR button on the remote control, highlight the main camera icon, and press the SELECT button on the remote control.

For information about the requirements and using the document camera, see the *Visual Concert DC User Guide*.

ShowStation IP: The Polycom ShowStation™ IP is a conference projector, combining the best features of high-resolution LCD and overhead projectors with the power of Web-based data connection. With ShowStation IP, meetings can be more productive. Transparencies, faxes or meeting documents may be sent out to meeting participants using the ShowStation IP. The ShowStation IP projects any type of document or Microsoft Office™ file in big-screen format, and shares it with any location instantly.

StreamStation: A Polycom StreamStation™ is used for ViewStation users that are planning on holding Webcasts with the ViewStation.

Visual Concert PC: Visual Concert PC allows communications between a laptop and the ViewStation for instant presentations without extensive configuration of your laptop computer.

4

Using the ViewStation with a PC

This chapter describes how to use a PC with a ViewStation and the various tasks you can perform from the PC.

The ViewStation is equipped with an embedded Web server that allows the PC user to access ViewStation features such as:

- Select a Presentation
- View a Presentation
- Closed Caption
- Start NetMeeting
- System Information and Management

These features are accessed on the ViewStation Web interface screen. To access these features, connect your PC to the ViewStation over the LAN or through a direct Ethernet connection.

There are three ways to connect a PC to the ViewStation. Refer to the ViewStation *QuickStart* card for detailed information on connecting cables.

It is assumed that the ViewStation is connected to the Ethernet LAN as shown in Figure 4-1 (**a** and **b**).

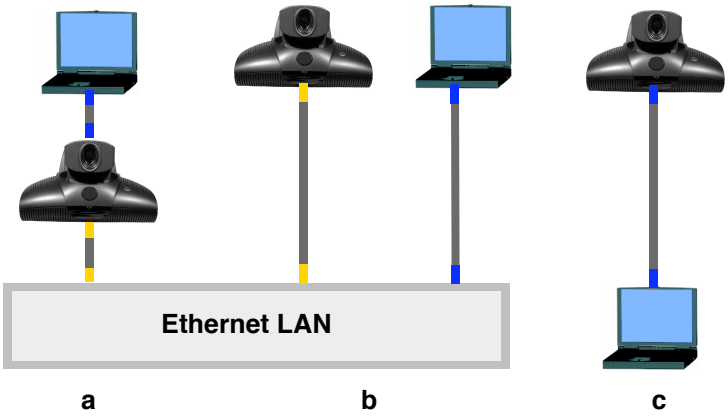


Figure 4-1. Three Unique ViewStation-to-PC Configurations

Figure 4-1 illustrates the three ways to connect a PC to a ViewStation.

Figure 4-1-**a** connects the PC to a blue RJ-45 port on the ViewStation. The ViewStation is connected from orange RJ-45 port to the Ethernet LAN.

Figure 4-1-**b** illustrates the typical connectivity relationship between the ViewStation and a PC which are both connected to an Ethernet LAN.

Figure 4-1-**c** demonstrates a method for connecting a PC to the ViewStation without LAN support. This is referred to as connecting to a stand alone PC.

Connecting The PC to a LAN Through the ViewStation

Figure 4-1-**a** illustrates the most common method for ViewStation to PC connectivity. If both ViewStation and PC have LAN connectivity, no additional configuration is needed. See "*Using the ViewStation Web Interface*" on page 139.

PC Network Properties

The following steps are specific to each commonly used Microsoft Windows™ Operating System:

For Windows 95 and 98:

a. Right-click the **Network Neighborhood** icon, and then right-click **Properties**.

b. When the **Network** box appears, select the **Configuration** tab, then double-click **TCP/IP**.

c. Select the **IP Address** tab. Make sure the OBTAIN AN IP ADDRESS AUTOMATICALLY button is selected. Then click **OK**.

For Windows ME:

a. Right-click the **My Network Places** icon, and then right-click **Properties**.

b. When the **Network** box appears, select the **Configuration** tab, then double-click **TCP/IP**.

c. Select the **IP Address** tab. Make sure the OBTAIN AN IP ADDRESS AUTOMATICALLY button is selected. Then click **OK**.

For Windows NT 4.0:

a. Right-click the **Network Neighborhood** icon, and then right-click **Properties**.

b. When the **Network** screen appears, select the **Protocols** tab, then double-click **TCP/IP Protocol.**

c. Select the **IP Address** tab. Make sure the OBTAIN AN IP ADDRESS AUTOMATICALLY button is selected. Then click **OK**.

For Windows 2000:

a. Right-click the **My Network Places** icon, and then right-click **Properties**.

b. In the **Network and Dial-up Connections** window, right-click **Local Area Connection**, and select **Properties**.

c. In the **Local Area Connection Properties** window, double-click **Internet Protocol** (**TCP/IP)**.

d. In the **Internet Protocol (TCP/IP) Properties** window, make sure the OBTAIN AN IP ADDRESS AUTOMATICALLY button is selected. Then click **OK**.

Note The ViewStation must be powered on when connecting the PC to the LAN via the ViewStation.

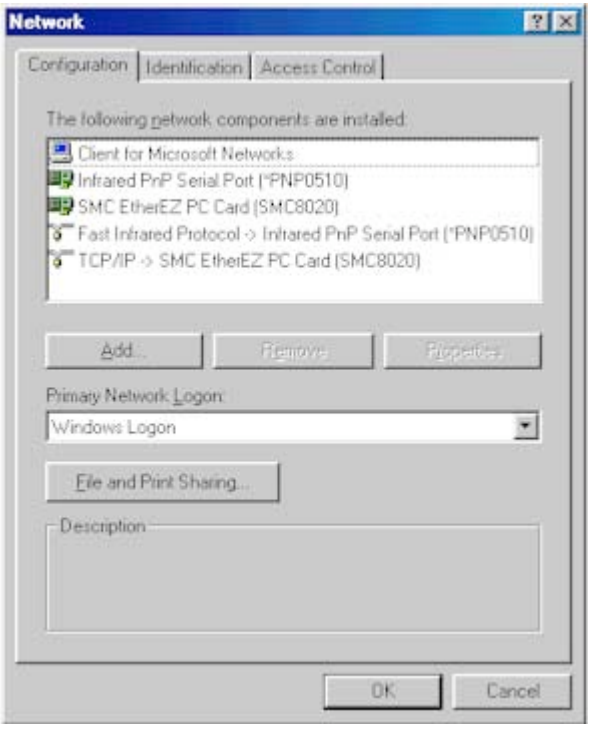


Figure 4-2. Network Screen for Windows 9.X

Connecting The ViewStation to a Stand-Alone PC

Figure 4-1-**c** illustrates a configuration in which neither the ViewStation nor the PC has access to an Ethernet LAN. For example: For an ISDN-configured ViewStation where H.323 videoconferencing is not used.

This configuration is NOT recommended when connecting to an Ethernet LAN in which an external DHCP server is used.

1. Connect the orange-tipped RJ-45 cable connector to the orange RJ-45 port on the ViewStation.
2. Connect the opposite end of the orange-tipped RJ-45 cable to the RJ-45 port to the Ethernet port on the PC.
3. Power on the ViewStation.
4. Configure the ViewStation DHCP setting (**System Info > Admin Setup > LAN/H.323 > LAN & Intranet**). Select SERVER in the **DHCP** field. The ViewStation becomes a DHCP server and provides IP addresses for up to 12 PCs.

Note If the DHCP server option is not available on your ViewStation, you must update your ViewStation through an H.320 call or connect the ViewStation to a LAN and run the SoftUpdate application on the ViewStation and check **Enable system to be a DHCP server**.

5. The ViewStation prompts you to save changes.
6. Go to the **System Information** screen (**System Info**) and verify the ViewStation IP address. (1.1.1.2)
7. The following message appears in a dialog box:
   “The system will now issue IP addresses to other PCs in the LAN. Continue Yes or No?”
   Choose **Yes** then exit the screen by selecting the **Menu** icon. The ViewStation automatically restarts. If you choose **No**, your changes are not saved.
8. Complete the following steps on your PC to finish configuration:

   For Windows 9X/NT:

   Right-click on the **Network Neighborhood** icon for on your Windows desktop and select Properties from the menu. The **Network** dialog box appears.

   For Windows 2000/ME:

   Right-click on the **My Network Places** icon for on your Windows desktop and right click on **Local Area Connection**.

   1. The **Network** dialog box appears. (The screen in Figure 4.3 is for Windows 2000 operating system. Your operating system may display this information differently.)

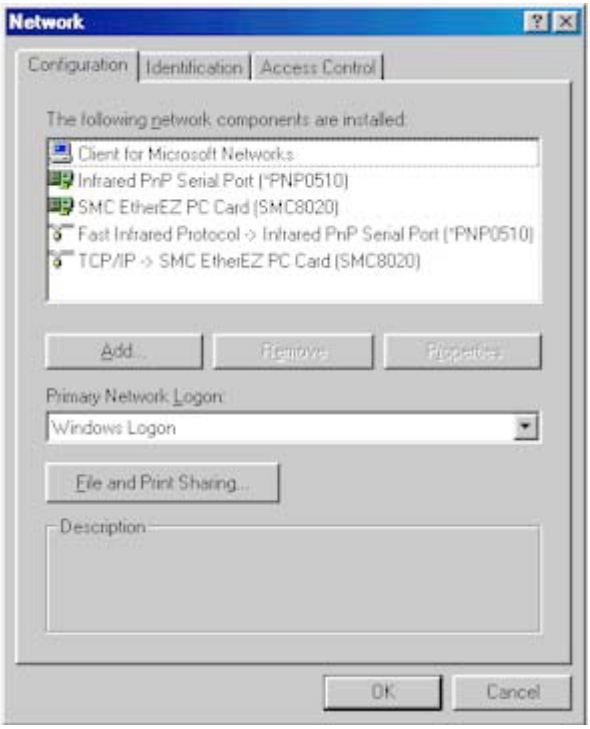


Figure 4-3. PC TCP/IP Network Screen

2. The **Primary Network Logon** as shown in Figure 4-3: Select **Windows Logon**, otherwise the ViewStation does not assign an IP address to the PC.

Note Individual network configurations may vary with the topography of the network used. Check with your Information Systems manager for assistance.

3. Highlight TCP/IP and select properties.
4. On the **IP Address** or **General** tab, select the **Obtain An IP Address Automatically** option and click on **OK**.

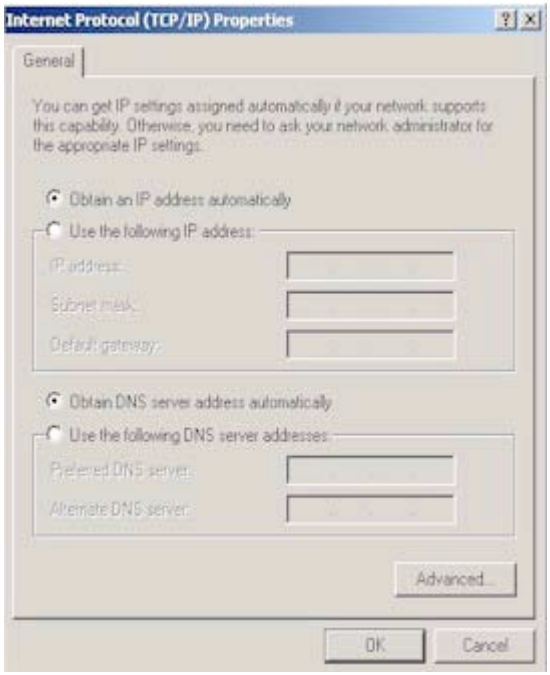

Internet Protocol (TCP/IP) Properties
General
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address:
Subnet mask:
Default gateway:
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server:
Alternate DNS server:
Advanced...
OK
Cancel

Figure 4-4. TCP/IP Properties Screen

5. Restart your PC and launch Internet Explorer.

Using the ViewStation Web Interface

All ViewStation models come with an embedded Web interface that offers the following options to ViewStation users:

- Select and View a Presentation see page 139
- Closed Caption see page 146
- Using Microsoft NetMeeting™ see page 147
- System Information and Remote Management see page 149

Select and View a Presentation

The ViewStation lets you view and present Microsoft PowerPoint 97 and 2000 presentation slides when it is connected to a PC (via LAN or direct). You can conduct a presentation on the ViewStation or you can watch a presentation from a PC. All that is required is the IP address of one of the ViewStations in the videoconference.

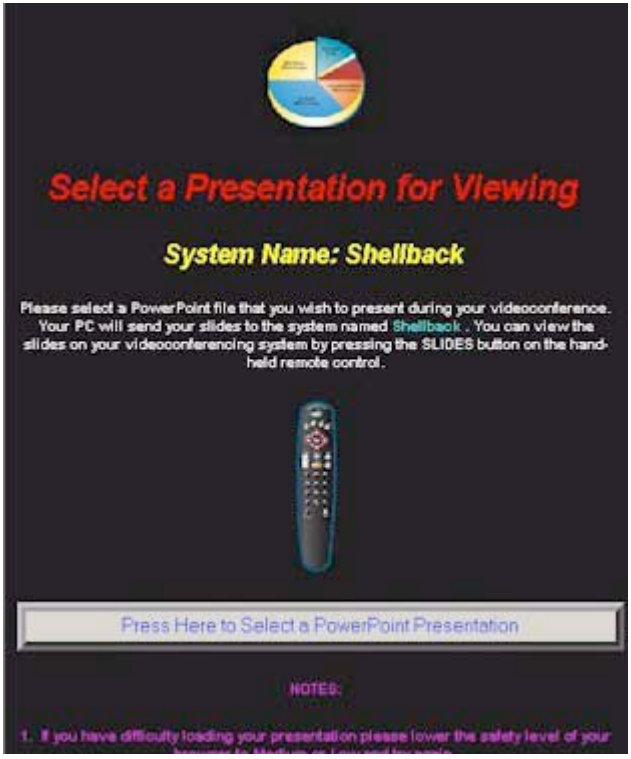

Select a Presentation for Viewing
System Name: Shellback
Please select a PowerPoint file that you wish to present during your videoconference. Your PC will send your slides to the system named Shellback . You can view the slides on your videoconferencing system by pressing the SLIDES button on the hand-held remote control.
Press Here to Select a PowerPoint Presentation
NOTES:

Figure 4-5. Select a Presentation Screen

To present a slide to a ViewStation, complete the following steps:

On the PC:

Launch Internet Explorer 4.0/5.0 or Netscape 4.5 or higher.

Note Ensure the browser is configured to accept cookies.

1. Enter the IP address of the ViewStation displaying the slides. The **Welcome page** appears.
2. Click the **Select a Presentation** icon. The **Select a Presentation for Viewing** page appears.
3. Click the PRESS HERE TO SELECT A POWERPOINT PRESENTATION button. The **pcPresent** dialog box appears.

Figure 4-6. pcPresent Screen

4. Enter a name and password if one has been established for the videoconference.

Note If the security level on the Internet browser is set too high, you cannot bypass the password. If this occurs, change the security level to low or medium.

5. Click the PLEASE PRESS HERE TO SELECT A POWERPOINT PRESENTATION button. The **File Open** dialog box appears.

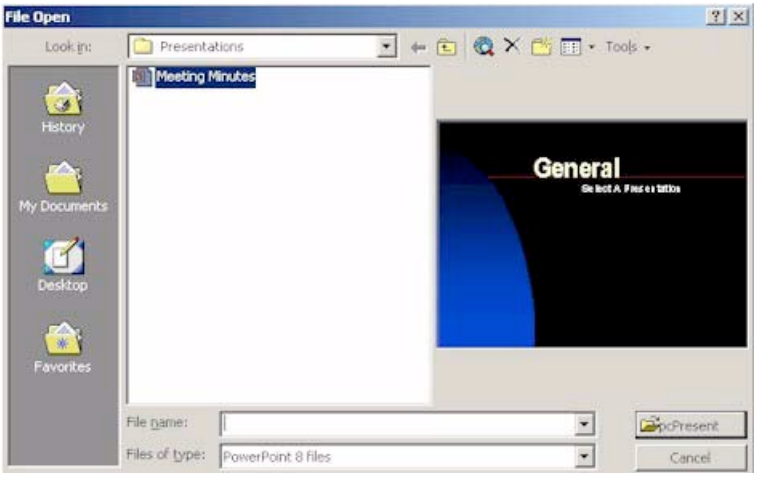


Figure 4-7. Open Presentation Screen

6. Select a presentation file and click on the pcPresent button. A window appears indicating that your slides are being converted to thumbnail sketches. Once this is complete, the thumbnails are loaded into the ViewStation flash memory.

Note The maximum slides per presentation is 100.

Converting PowerPoint to JPEGs .....
88%
Exporting Thumbnail image 8 of 9
PowerPoint is exporting your presentation to a format that can be used during a video conference. Please wait...
When this is complete press the SLIDES button on your remote control to begin your presentation.

Figure 4-8. Converting PowerPoint Slides Screen

Note This feature enables the ViewStation to hold the slides active in active memory if the videoconference connection is

lost. The slides remain in the ViewStation as long as they are active on the ViewStation Web interface.

Note The ViewStation can load up to eight presentations in memory.

On the ViewStation:

1. Press the SLIDES button on the remote control. The **Available Presentations** screen appears.

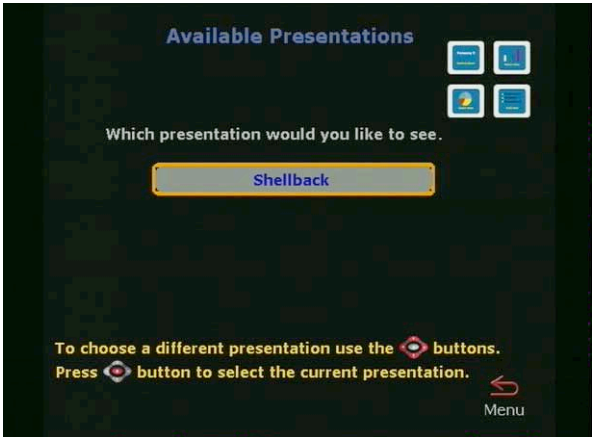

Available Presentations
Which presentation would you like to see.
Shellback
To choose a different presentation use the buttons.
Press button to select the current presentation.
Menu

Figure 4-9. Available Presentations Screen

2. Select a presentation and press the SELECT button on the remote control. A password may be required to proceed.

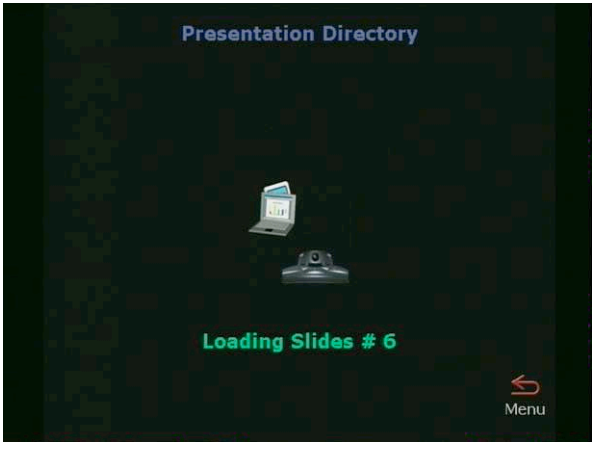


Figure 4-10. Loading Slides Screen

The **Loading Sides** screen shown in Figure 4-10 appears when a presentation selection has been made.

3. A thumbnail of each slide provides the presenter with a preview of all the slides simultaneously. To view a slide, highlight a slide and press the SELECT button on the remote control.

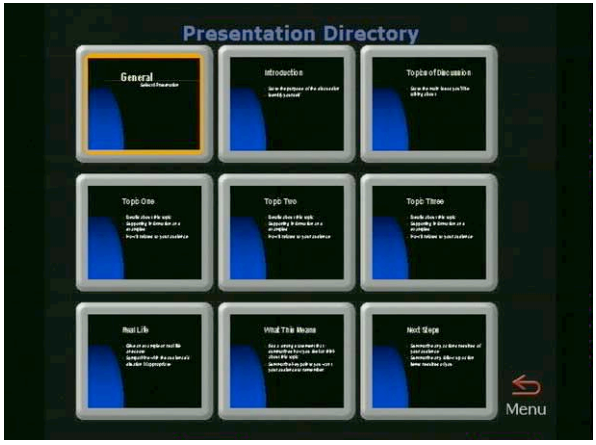


Figure 4-11. Thumbnail of Slides in the Presentation Directory

Press the INFO button for additional information about the slide being viewed. The name of the presentation appears, as well as the slide number and the viewing password. Passwords for slides may be changed on this screen. This affects the entire presentation to all viewers.

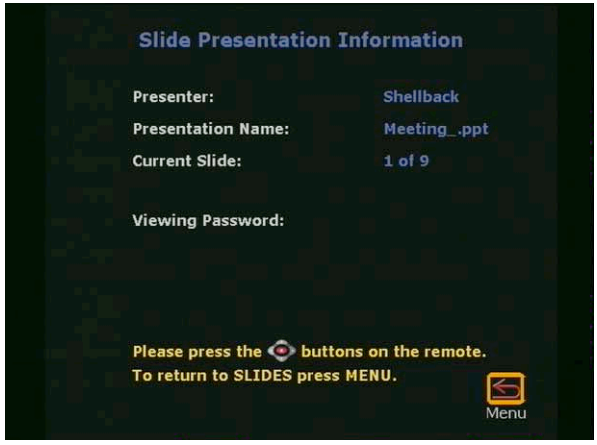


Figure 4-12. Slide Presentation Information Screen

4. Use the ARROW buttons on the remote control to move backward and forward through a presentation. Use the following table to navigate the presentation menu for the ViewStation:

Button	Action
UP ARROW	Goes to the beginning of the presentation.
DOWN ARROW	Goes to the end of the presentation.
LEFT ARROW	Moves the highlight marker to the left.
RIGHT ARROW	Moves the highlight marker to the right.
MENU	Switch between viewing a thumbnail and viewing the full slide.
SELECT	Return to live video or select a slide from thumbnails.
SLIDES	Select another presentation.

Sending Snapshots to the ViewStation

ViewStations with an additional camera(s) can send a snapshot for any camera connected to the ViewStation by pressing the SNAPSHOT button on the remote control.

Complete the following to send a snapshot to the ViewStation:

1. Press the SNAPSHOT button on the remote control.
2. Select the desired camera (1, 2, or 3.)
3. Press the SNAPSHOT button again to send the snapshot to the ViewStation.
4. Press the SNAPSHOT button again to return to live video.

Viewing Snapshots from the ViewStation

Up to 12 users can view ViewStation snapshots by completing the following steps:

1. Open a web browser.
2. Enter the IP address of the ViewStation in the browser address bar.
3. Select **View a Presentation**.
4. Enter the user name (and password if required).

5. Wait for the browser to connect to the ViewStation as indicated in the lower left hand browser status bar.
6. The snapshot images appear as they are taken from the ViewStation.

Closed Caption

Closed Caption is a Polycom proprietary software feature that displays text on the **Main Calling** screen of the near and far ViewStation systems.

Closed Caption is used through the ViewStation Web interface. Closed Caption is particularly well suited to participants in a video conference who can only communicate through written messages or who need to have the verbal exchange of other participants transcribed or translated for them.

Closed Caption is also a useful tool for hearing-impaired or foreign language speakers.

Accessing and Using Closed Caption

To access and use Closed Caption:

1. Establish a video call with the far site.
2. On your PC, start Internet Explorer 4.0+ or Netscape 5.0+.
3. To access the ViewStation Web interface, enter the near or far site ViewStation IP address in the address field of the Web browser.
4. The Polycom ViewStation Web interface page is displayed. Select the **Closed Caption** icon.
5. The **Enter network password** dialog box is displayed; enter the user name and password (if used).
6. The **Closed Caption** page is displayed. Type the text in the **Current** field and press **ENTER**.

   Closed Caption supports up to 250 characters per line.

   The text entered is displayed on the ViewStation and in the HISTORY field. The HISTORY field retains all of the text typed during the current session.

Usage Information and Restrictions About Closed Caption

The following lists some usage information and restrictions about Closed Caption:

- Closed Caption works in a call for live closed captioning.
- Closed Caption works out of a call to assist in creation of screen shots.
- Closed Caption works over H.323, H.320, and V.35 calls.
- Closed Caption is supported only with ViewStation system software version 6.5 or greater.
- Closed Caption is not supported in multi-point calls.
- Closed Caption requires:
  - A user name
  - A password (if a password is used).
- If you hang up the video call and use Closed Caption out of a call, you may have to refresh your browser.

Using Microsoft NetMeeting™

Video calls may be placed using Microsoft NetMeeting. NetMeeting data is transmitted over an Ethernet LAN network and is displayed on the PC at each site.

Complete the following steps to access NetMeeting:

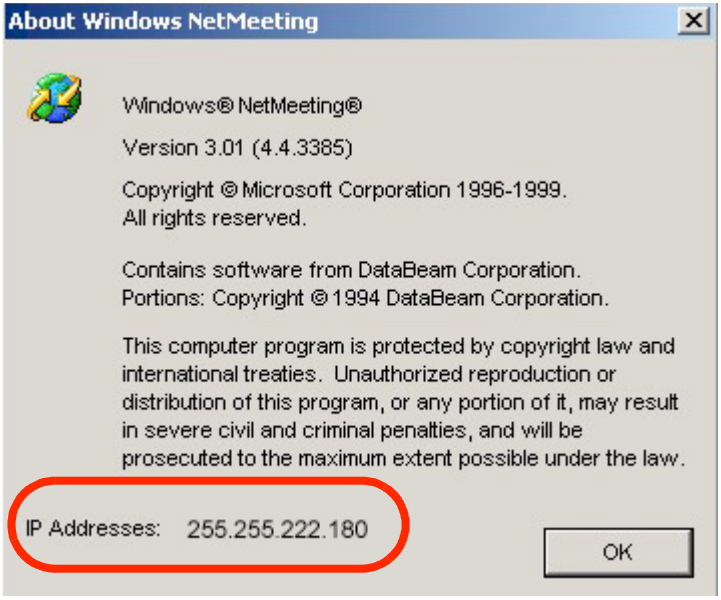
On the PC:

1. Open Internet Explorer 4.0+ or Netscape 5.0+
2. In the BROWSER ADDRESS field, enter the IP address of the ViewStation.

   The ViewStation Web interface **Welcome** page appears on the PC.
3. Click on the **Start NetMeeting** icon.
4. Enter a name in the USER NAME field. (Do not use admin as the user name.)
5. If a slide-viewing password is used, enter it in the **Password** field. Forgotten passwords are listed on the **System Info > Admin Setup > Security** screen of the ViewStation.

6. Once a password is entered in the dialog box, click **OK** to go to the **How to Start a NetMeeting Call** Web page. Follow the on-screen instructions.

Note To locate the IP address of the PC, start NetMeeting on the PC and select **HELP > About Windows NetMeeting**. The IP address for the PC is displayed in the lower portion of the **Help** screen.


About Windows NetMeeting
Windows® NetMeeting®
Version 3.01 (4.4.3385)
Copyright © Microsoft Corporation 1996-1999.
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Portions: Copyright © 1994 DataBeam Corporation.
This computer program is protected by copyright law and international treaties. Unauthorized reproduction or distribution of this program, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under the law.
IP Addresses: 255.255.222.180
OK

Figure 4-13. About Windows NetMeeting Dialog Box

7. Select **Call** from the NetMeeting menu on the PC connected to the ViewStation.
8. In the **Address Field**, enter the IP address of the ViewStation that is connected to the PC. For easy reference, the IP address of the ViewStation is provided on the **How to Start a NetMeeting Call** Web page.

During the NetMeeting call, the whiteboard, chat, application sharing, and file-transfer capabilities are available. Audio and video are provided from the ViewStation.

To add participants to a NetMeeting conference, participants must complete steps 1 through 4 above.

NetMeeting Application Sharing

To use NetMeeting application sharing, file transfer, and whiteboarding, a PC must be connected to your ViewStation directly or via the LAN. NetMeeting data is transmitted via the H.323 IP network. The bandwidth used is dynamically allocated so that when NetMeeting is not sending data, the bandwidth used returns to the video data.

Note T.120 application sharing, file transfer, and whiteboarding are supported for NetMeeting 3.0 when used with two ViewStations. You must have the same version of NetMeeting installed on both ends of the videoconference.

H.323 Video Calls with NetMeeting

H.323 video calls can be placed to and from a PC using NetMeeting 2.11 or 3.0+. The line speed of a video call from NetMeeting to a ViewStation depends on the bandwidth setting in NetMeeting. The maximum line speed for NetMeeting calls is:

- Cable, xDSL, or ISDN = 128 Kbps
- LAN = 384 Kbps (maximum speed of Microsoft NetMeeting).

Calls from a ViewStation to NetMeeting must be at line speeds greater than 64 kbps. Application sharing with NetMeeting cannot be done in an H.323 call with a ViewStation.

System Information and Remote Management

The ViewStation has an embedded Web server that provides for ViewStation management from the convenience of a PC. Some screens appear in more than one place on the Web interface. The following tasks can be performed from the ViewStation Web interface:

- Run diagnostic tests on a system.
- Control a system.
- Send messages to a system.
- Change the setup of a system.
- Place a call to a system or participate in an existing call.

To access the ViewStation Remote Management controls:

1. Launch the web browser.

2. Enter the IP address of the ViewStation.

   The ViewStation Web interface **Welcome** page appears on the Web browser for the ViewStation.

3. Click on the **System Information and Management** icon. The **System Information** Web page appears.

Figure 4-14. System Information and Management Screen

To the right of the four icons is the **System Information** screen, which provides key information about the ViewStation.

The four icons on the left provide different functions for the ViewStation that are similar to most of the functions described in "*System Information*" on page 171.

Placing a Call from the ViewStation Web Interface

To place a video call from the **Manage System** page, click on the **Place a Call** icon.

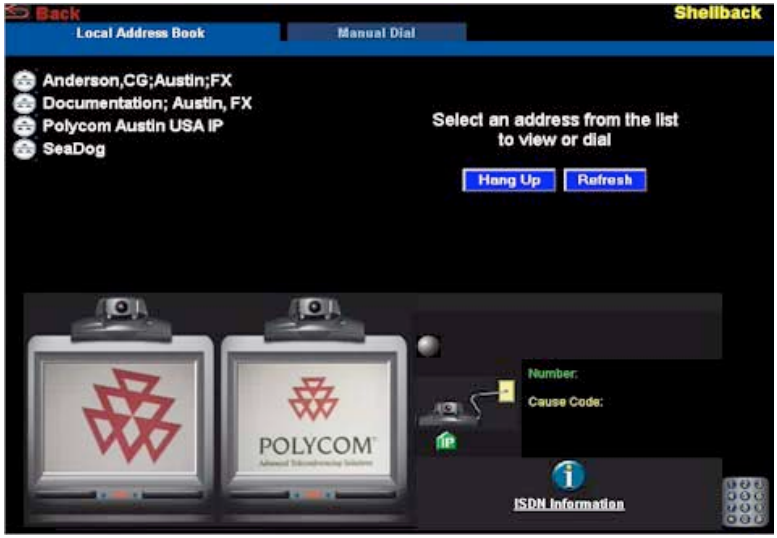

Figure 4-15. Place a Call from the Web Interface Screen

There are two ways to place a call from the screen shown in Figure 4-15:

- From the Local Address Book
- Manual Dial

From the Local Address Book: Address entries added to the ViewStation address book appear in the upper right side of the call screen. To place a call:

- Select a site from the upper left side of the screen.
- The selected site (as shown in Figure 4-16) appears on the right side of the screen. Select **Call this Site**. The ViewStation calls the selected site.

Figure 4-16. Placing a Call

- When a call is established, the far site appears in the right monitor image as shown in Figure 4-17.

Near Site **Far Site**

Figure 4-17. In Video Conference Call

Manual Dial: To place a video call manually, click on the **Manual Dial** tab on the top of the browser screen.

1. Choose the method of call type:
   - For H.323 calls: Enter the IP or DNS address of the far site in the **Video A** text area.

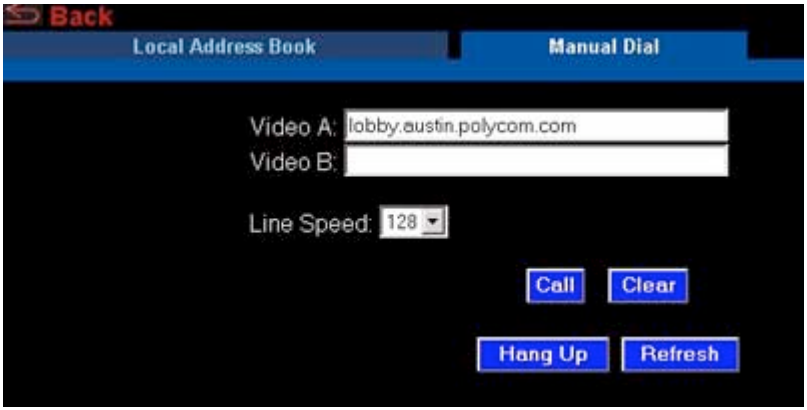

Figure 4-18. Manual Dial Screen

   - For H.320 calls: Enter the primary ISDN number in the **Video A** text area. Then enter the secondary ISDN number in the **Video B** text area.
2. Select the line speed used for the call.
3. Click the CALL button.
4. When a call is established, the monitor screens (as shown in Figure 4-17) appear.
5. To disconnect a call, click on the HANG UP button.

ViewStation Web Interface Icons

The ViewStation Web interface contains a set of tools located in the **System Information and Remote Management** pages of the Web interface. These tools are used in the remote management of the ViewStation. The following icons are the counterparts to the ViewStation **Admin Setup** screen.

Note Some icons and associated screens only apply to ViewStations with optional configurations. The following table lists icons common to all ViewStation models.

Web Interface Icon	ViewStation Counterpart
Admin Setup	**System Info > Admin Setup**
General Setup	**System Info > Admin Setup > General Setup**
ISDN Video Network	**System Info > Admin Setup > Video Network** (ISDN, DCP, and V.35 only)
IMUX Setup	**System Info > Admin Setup > Video Network > IMUX** BRI / DCP ViewStations Only

Web Interface Icon	ViewStation Counterpart
LAN & Intranet Setup	**System Info > Admin Setup > LAN/H.323 > Lan & Intranet**
Data Conference	**System Info > Admin Setup > Data Conference**
Telephone & Audio	**System Info > Admin Setup > Phone/Audio**
Video & Cameras	**System Info > Admin Setup > Video/Camera**

Web Interface Icon	ViewStation Counterpart
Software	**System Info > Admin Setup > Software/Hardware > Software**
Hardware	**System Info > Admin Setup > Software / Hardware > Hardware**
Options	**System Info > Admin Setup > Software / Hardware > System Options**
Diagnostics	**System Info > Diagnostics**

Web Interface Icon	ViewStation Counterpart
 Network Statistics	**System Info > Diagnostics > Network Stats**
 Advanced Statistics	**System Info > Diagnostics > Advanced Stats**
 Color Bar	**System Info > Diagnostics > Color Bar**
 Audio Tone	**System Info > Diagnostics > Audio > Generate Tone**

Web Interface Icon	ViewStation Counterpart
 Far End Loop	**This feature is only available when performing a Far End Loop in a call.**
 Near End Loop	**System Info > Diagnostics > Near End Loop**
 Remote Control	The **Remote Control** icon is a virtual remote control for the ViewStation. Use the virtual remote control as you would the handheld remote control.

Web Interface Icon	ViewStation Counterpart
 Send Message	From the System Diagnostics Web page, click on the **Send Message** icon to send a message to a ViewStation. The text message may be up to 100 characters in length. When the Send a Message Web page appears, type in your message and click on the SEND MESSAGE button. Your message appears on screen for 15 seconds. The message appears only on the screen of the ViewStation that you are managing.
 Restart System	The **Restart System** icon is used to reboot the ViewStation after changes are made to the configuration settings.
 ISDN Numbers	**System Info > Admin Setup > Video Network > IMUX > Numbers** ISDN ViewStations Only
 SPIDs	**System Info > Admin Setup > Video Network > IMUX > SPIDS** ISDN ViewStations Only

Web Interface Icon	ViewStation Counterpart
 Audio Quality	**System Info > Admin Setup > Video Network > IMUX > Audio Quality** BRI / DCP ViewStations Only
 Dialing Speeds	**System Info > Admin Setup > Video Network > IMUX > Dialing Speeds** **or** **System Info > Admin Setup > LAN/H.323 LAN/Intranet > Dialing Speeds**
 Call Preference	**System Info > Admin Setup > Video Network > Call Preference**
 ISDN Trace	The **ISDN Trace** icon is used to diagnose the condition of each ISDN line. ISDN ViewStations Only

Web Interface Icon	ViewStation Counterpart
V.35 Setup	**System Info > Admin Setup > Video Network > Advanced V.35 Setup** ViewStations with V.35 Only
Advanced Dialing	**System Info > Admin Setup > Video Network > IMUX > Advanced Dialing** DCP, ISDN, and V.35 ViewStations Only
LAN/Intranet	**System Info > Admin Setup > LAN/H.323 > LAN/Intranet**
V.35 Video Network	**System Info > Admin Setup > Video Network > Video Network**

Web Interface Icon	ViewStation Counterpart
H.323	**System Info > Admin Setup > LAN/H.323 > H.323**
Global Management System Setup	**System Info > Admin Setup > Global Management**
Global Address Book	**System Info > Admin Setup > Global Address > Global Address**
Server	**System Info > Admin Setup > Global Address > Global Address > Server**

Web Interface Icon	ViewStation Counterpart
Preferences	**System Info > Admin Setup > Global Address > Global Address > Preferences**
Private Numbers	**System Info > Admin Setup > Global Address > Global Address > Private NET**
Gateway Number	**System Info > Admin Setup > Global Address > Global Address > Gateway Number**
Dialing Rules 1	**System Info > Admin Setup > Global Address > Global Address > Dialing Rules 1**

Web Interface Icon	ViewStation Counterpart
Dialing Rules 2	**System Info > Admin Setup > Global Address > Global Address > Dialing Rules 2**
Info 1	**System Info > Admin Setup > Global Management > Info 1**
SNMP	**System Info > Admin Setup > LAN/H.323 > SNMP**
Home	Click on the **Home** icon to go to the main ViewStation Web interface page.

ViewStation Software

Downgrading Software

ViewStations operating on version 7.0+ software can downgrade to software version 5.5. This may be done to allow a ViewStation with older software with communicate to another ViewStation. Upgrading both ViewStations to software version 7.0+ is strongly recommended.

Note PC software applications such as Visual Concert PC only operate on ViewStation software version 7.0.

Upgrading Software

The two methods for updating the ViewStation software are:

- Using an H.320 call
- Using the Polycom SoftUpdate application over a PC connected to a LAN

Upgrading Software over ISDN

The software on the ViewStation can be upgraded using an H.320 video call only from another ViewStation. Upgrading software over H.320 can only be done with a ViewStation of the exact model. You can perform a software upgrade to the far site over your H.320 line during a call. Upgrading works best at 384 Kbps.

Caution Do not power off the ViewStation during the software update process. If you power off a ViewStation during the download process, the ViewStation reverts to its original software version.

The ViewStation automatically restarts once the software upgrade process is complete.

Complete the following steps to upgrade a system:

1. Place a video call to the far site ViewStation.
2. Select **System Info > Admin Setup > Security** and write down the passwords that appear on the **Security** screen of the site you want to upgrade.

3. On the site sending the software, select **System Info > Admin Setup > Software/Hardware > Software Update** to access the **Software Update** screen.
4. Highlight the **Start** icon and press the SELECT button on the remote control.
5. Enter the passwords that you wrote down in Step 2, highlight the **Start** icon, and press the SELECT button on the remote control to begin the upgrade process.

Upgrading Software over the LAN

You can use the SoftUpdate application to upgrade your software over the LAN.

Complete the following steps to upgrade your ViewStation software:

1. Download the latest software from **www.polycom.com** and save it on your PC. If you do not have internet access, your reseller can supply you with the application.
2. Double-click on the software zip file and select a directory from which you want the files extracted. If you are prompted for a password, contact your network administrator.
3. Once the application is extracted, double-click on the **SoftUpdate.exe** file. The **SoftUpdate** dialog box appears.

Figure 4-19. Software Update Screen

4. Click on the SOFTUPDATE button. The **IP Address** dialog box appears.
5. Enter the IP Address of the ViewStation you want to update and an administrator password, if one is required. Click **OK**. A **System Info** dialog box appears.

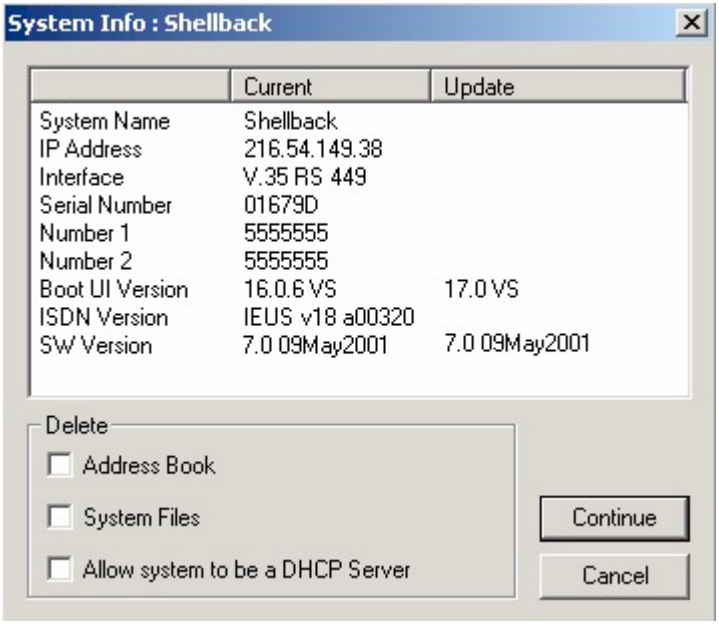

Figure 4-20. System Information Dialog Box

6. Click on the CONTINUE button to start the update process. During the update, complete the following:
   a. Print and read the **Read Me First** file.
   b. Periodically look at the progress of the update. See "*Network and Communications*" on page 182 if this process appears to be inactive after 10 minutes.
   c. When the SoftUpdate is complete, click **OK** to close the SoftUpdate application.

Using Visual Concert PC

ViewStation release 7.0 software and above supports Visual Concert PC. Visual Concert PC is an adaptor that lets you simultaneously send a live screen image from the PC to your Polycom ViewStation conferencing system. The live PC image is seen as a second live video source to the near and far site is at an image resolution of 704 x 576 pixels. This is referred to as dual-streamed video.

Installing Visual Concert PC is easy and can be done in one of two ways:

1. Insert the Visual Concert PC card into your PC or laptop's PCMCIA slot. The PC automatically loads the Visual Concert PC software.
2. Connect the ViewStation to the PC over the LAN and run the VisualConcert.exe application on the PC.

Visual Concert PC works in a single-monitor or dual-monitor configuration. It can be used out of a call or in a call (H.320 or H.323) with another ViewStation with at least version 7.0 software. This allows you to make presentations to near and remote sites directly from your PC.

Note You must have ViewStation software version 7.0 or better to use Visual Concert PC.

For more information on the Visual Concert PC, consult the *Visual Concert PC User Guide*.

5

System Information and Diagnostics

This chapter describes the ViewStation System Information and Diagnostic functions.

System Information

The **System Information** screen (shown in Figure 5-1) contains key information about the ViewStation.

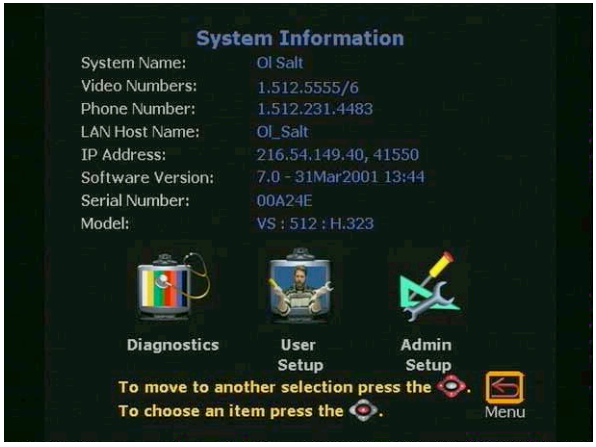

Figure 5-1. System Information Screen

On the **System Information** screen, the following information is provided. The information cannot be changed from this screen.

- **System Name:** The system name is the name assigned to the ViewStation by the LAN manager or the ViewStation administrator. To change this information go to **System Info > Admin Setup > General Setup**.
- **Video Numbers**: Video numbers are the ISDN, DCP, and V.35 numbers assigned to the ViewStation.

The ISDN numbers are set in **System Info > Admin Setup > Video Network > IMUX > Numbers** for the ViewStation H.323 with Quad BRI or Avaya DCP.

OR

For the ViewStation 128: **System Info > Admin Setup > Video Network > ISDN Video Network**.

- **Phone Number:** This is the phone number assigned to the ViewStation if the voice conference feature is used. To set a phone number, go to **System Info > Admin Setup > Phone/Audio**.
- **LAN Host Name:** The LAN host name is the name assigned to the ViewStation for TCP/IP configuration. To set the LAN host name, go to **System Info > Admin Setup > LAN/H.323 > LAN/Intranet**.
- **IP Address:** The IP address assigned to the ViewStation is assigned automatically through a DHCP server or is set manually (static). To manually set the IP address, go to **System Info > Admin Setup > LAN/H.323 > LAN/Intranet**.
- **Software Version:** This displays the software version and the date and time of the software release. Additional information on the ViewStation software version is located at **System Info > Admin Setup > Software/Hardware > Software**.
- **Serial Number:** The ViewStation serial number is unique to each ViewStation. This number is also located on a bar code label on the bottom of the ViewStation unit. This number cannot be modified.
- **Model:** The **ViewStation** model type is displayed.

The **User Setup** and **Admin Setup** screens are discussed in Chapter 2, page 31.

Diagnostics

The **Diagnostics** screen is used to check network statistics and perform various diagnostic tests. The **Diagnostics** screen is located at **System Info > Diagnostics**. The following eight icons can be accessed through the **Diagnostics** screen:

- Network Statistics, see page 173

- Advanced Statistics. see page 173
- Call Status, see page 173
- Color Bar, see page 174
- Audio, see page 174
- Near End Loop, see page 174
- Far End Loop (in H.320 call only), see page 174
- Reset System, see page 175

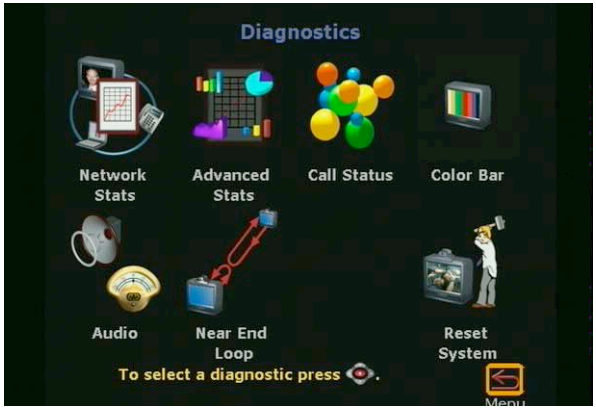

Figure 5-2. System Diagnostics Screen

Network Stats

The **Network Statistics** screen displays the network protocols and transmits and receives data speeds for video calls.

Advanced Stats

The **Advanced Network Statistics** screen displays detailed information about the status of your call. Transmit and receive speeds are displayed for both audio and video during a video call.

Call Status

The **Call Status** screen allows you to determine if one of the far site's ISDN channels consistently fails to connect. If you highlight any of the call progress indicators, the corresponding line number appears. You can then compare this number to the number you need to dial. Check the status code for each line if you need to troubleshoot line problems. See "*ISDN Information*" on page 203.

Color Bar

The **Color Bar** screen is used to test the color setting on the television monitor. Highlight the **View Color Bars** icon and press the SELECT button on the remote control. Color bars appear full screen. Use the controls on the television monitor to adjust the color settings. Press any button on the remote control to return to the **Color Bar** screen.

Audio

The **Audio** screen is used to generate a tone and view the audio levels of the ViewStation.

To generate a tone:

- Highlight the **Generate Tone** icon and press the SELECT button. Adjust the volume controls on the ViewStation and television monitor to comfortable levels.
- Press any button to stop the tone. If the system is in a call the far site also hears the tone.

To view audio levels:

- Highlight the **Audio Meter** icon and press the SELECT button on the remote control.
- The **Audio Meter** screen indicates the audio level of all audio inputs connected to the ViewStation. Speak into the microphone to test the audio level.

Near End Loop

The **Near End Loop** screen allows you to test the encoder/decoder on the ViewStation. This can help you diagnose a problem with a video call. Press any button on the remote control to stop the loop.

Far End Loop

The **Far End Loop** screen only appears during an H.320 or V.35 call and allows you to test the encoder/decoder on the ViewStation. This can help you diagnose a problem with an H.320 or a V.35 video call. If you perform a far-end loop test during a call, the far site sees its own loop. Press any button on the remote control to stop the loop.

Reset System

To reset the system, enter the ViewStation serial number and select the RESET button. The **Reset System** screen clears existing system configurations. Use the reset system function to erase your system settings and/or your address book entries. Once you have reset the system, your system walks you through the system configuration screens as it did when you powered on the ViewStation for the first time.

Note Be sure to copy system information before resetting a system. All settings are lost when you reset the system.

6

Troubleshooting

General Problems

Symptom	Cause	Solution
Slow blinking green light appears on the front of the ViewStation.	The system is sleeping.	System is in sleep mode. This is normal. The system wakes up on any action from the remote control or on an incoming call.
Amber light appears on the front of the ViewStation.	The system is in a call.	This is normal.
Green light appears on the front on the ViewStation.	The system is not in a call.	This is normal.
Cannot enter the System Setup menus.	System is password protected. Password has been forgotten.	Go to Diagnostics menu and perform a system reset. This erases all your system settings except for your address book. You may then enter a new password in the Security menu. Be sure all your ISDN infomation has been recoreded before this process is initiated.
System starts in the **Software Update** screen.	System software is corrupt or not loaded properly.	Load system software on the ViewStation from your PC.

Audio

Symptom	Cause	Solution
Not enough volume during a call.	Volume set too low on the ViewStation.	Turn up the ViewStation volume using the remote control.
	Volume set too low on the monitor.	Turn up the volume on your monitor or external amplifier.
	Microphone pod is too far from the speaker.	Move the microphone pod closer to the meeting participants.
No audio in a call.	Television monitor audio inputs not connected properly.	Check audio output on the **Generate Tone** screen under Diagnostics. You should hear a 400 Hz tone emitting from the speaker.
	ViewStation connected to the wrong audio input on the monitor.	Make sure the ViewStation audio output lead(s) are connected to the same input connector(s) that have been selected on the monitor.
	Far site is muted.	Look for the **Far Site Mute** icon. Ask the far site to unmute their microphone pod.
	Too many network line errors.	Disconnect call and reconnect later.
ViewStation startup music plays through the built-in ViewStation speaker, but not through monitor speakers.	Television monitor speakers or audio amplifier not properly connected.	Check audio connections and volume level on your monitor.
Incoming call ring and other sound effects too loud or too soft.	Sound effects volume not set at desired level.	Adjust the sound effects volume on the **Phone/Audio** screen. If you do not want to hear sound effects, set the volume to zero.

Symptom	Cause	Solution
An echo is heard at the near site when speaking.	Far site microphone pod is too close to the audio speaker.	At the far site, make sure the microphone pod is placed away from the audio speaker.
	The far site audio volume may be too loud.	Turn down the audio volume at the far site.
Near site or far site cannot hear VCR audio or see the VCR video.	VCR input is not selected.	Turn on the VCR input by selecting the NEAR key twice and selecting the **VCR** icon.
Local audio can be heard when speaking in the microphone.	The monitor or audio amplifier is not connected to the audio out of the ViewStation.	Connect the monitor or audio amplifier to the monitor audio out of the ViewStation.

Video

Symptom	Cause	Solution
The monitor is blank.	The ViewStation goes to sleep mode after four minutes of inactivity.	Pick up the remote control to wake up the ViewStation
Picture slow or jerky.	Only one 64 Kpbs channel is connecting in your call.	Check the ISDN number of the far site. Ask the far site to call your site. Verify network under the Network Status menu (**System Info > Diagnostics > Network Stats**.)
	Excessive motion in the picture you are receiving.	A background with less motion provides a better, smoother video picture.
Near site camera does not pan or tilt.	You are attempting to move a camera that does not have pan/tilt/zoom capabilities.	Make sure you have selected a pan/tilt/zoom camera.
Blue screen in the PIP window.	No video input.	Check that there is a video source present on the selected input.
	Camera selection is incorrect.	Check camera selection on the **Camera** screen.
	The VCR input is selected and the VCR is idle or not running. Most VCRs generate a blue screen when the tape is not playing.	Select a different input on the ViewStation, or play a tape on the VCR.

Symptom	Cause	Solution
Camera voice tracking does not work properly.	Camera tracking was turned off by near or far site.	Camera tracking is turned off when the near or far site moves your camera. Press the AUTO button to restore tracking.
	The far site is speaking.	The camera stops tracking when the far site speaks to prevent the camera from pointing to your monitor speaker. Wait for the far site to stop speaking.
	The far site is very noisy.	The camera stops tracking when the far site is too noisy. Try setting the ViewStation to track to camera presets.
	Near site is on mute.	The near site camera does not track when the near site is on MUTE. Toggle mute function with the MUTE button.
	Near site is noisy or too many people are talking at once.	Reduce the noise in the room.

Network and Communications

Symptom	Cause	Solution
ISDN: Error Message when dialing a video call.	ISDN error code received from the ISDN line.	See *"ISDN Information"* on page 203.
ISDN: When placing a call, progress icons do not turn green.	**Call Progress** icons indicate that the video call did not complete.	The **Call Progress** icons indicate the call state when placing or receiving a video call on each ISDN channel: 1/4 Blue **-** Ringing. 1/2 Yellow - Call connected and is ringing at the far site. 3/4 Orange - Negotiation. Full Green - Connected. Go to the **Call Status** screen. Highlight each of the circles for each of the channels dialed. The numbers dialed for each channel are displayed as you highlight the corresponding circle. Make sure that the far site has entered the number for each ISDN line correctly. See *"ISDN Information"* on page 203.
System is waiting for an IP address. **System Info** screen shows "waiting" in IP address field.	LAN or DHCP server is not operating.	Check connections to the LAN. Contact your network administrator.
ISDN: **Line Status** icons do not go away so video calls cannot be made.	ISDN line is not present.	Check the ISDN line connections.
	ViewStation is directly connected to a U interface.	Install an NT-1 between your ISDN line and the ViewStation ISDN connection.

Symptom	Cause	Solution
ISDN Line errors when using SPID configuration	For ViewStation with BRI or DCP: Go to the **Numbers** screen (**System Info > Admin Setup > Video Network > Numbers**) and check the ISDN numbers are entered correctly. For ViewStation 128: Go to the **ISDN Video Network** screen **(System Info > Admin Setup > Video Network**) and check the ISDN numbers are entered correctly.	Enter correct SPID numbers. Note: The AT&T point-to-point protocol does not require SPIDs.
Error Message occurs when dialing a video call.	The first line did not connect. It cannot make a call if the first line does not connect.	Check that all network cables are properly connected. Restart the system.
	If it is an H.323 call, IP Gateway/ Gatekeeper is not operating or is not configured correctly.	Contact your network administrator.

IMUX

Symptom	Cause	Solution
Cannot dial remote system in BONDING 384 Kbps calls.	Call progress circles only displays blue or yellow.	Start by calling the far-site at 1x64 or 2x64 Kpbs. This verifies if the primary number is correct. If these calls complete, try 256 Kbps then 384 Kbps.
Dialing a remote site in calls above 128 Kbps does not work.	Call progress circles do not turn green, or remain blue after the first channel connects.	Go to the **Call Status** screen. Highlight each of the circles for each of the channels dialed. The numbers dialed for each channel are displayed as you highlight the corresponding circle. Make sure that the far site has entered the number for each ISDN line correctly. The numbers for Line 1 - Line 4 should correspond with connections 1 - 4 on the IMUX. See *"ISDN Errors"* on page 205.
Cannot select 112 or 128 speeds for BONDING calls from the **Speed Selection** icon on the Video Phone.	Speeds do not show when selecting the **Speed** icon.	Add line speeds by going to the **IMUX Dialing Speeds** screen.

LAN / Intranet

Symptom	Cause	Solution
Cannot access ViewStation Web interface from the PC Web browser.	ViewStation DHCP is set to CLIENT and no DHCP server is available.	Change your IP address to static. Contact your network administrator.
	Ethernet LAN cable is not connected to the Ethernet LAN port on the ViewStation.	Connect the Ethernet LAN cable to the Ethernet LAN port. Contact your network administrator.
	Failed LAN cable.	Check the light on the back of the ViewStation. You should have a steady green light to indicate a connection to the LAN and a flashing orange light to indicate LAN traffic.
	There is a firewall between your PC and your ViewStation.	Consult your network administrator.
	Your PC is on a different subnet and there is no router between you and your ViewStation.	Change your PC or ViewStation subnet mask and IP address so that they are both on the same LAN or subnet.
System does not allow management via the Web.	Wrong password.	Enter the correct password. Note: The default password is “admin”.
	Too many managers logged into the system.	Only two system managers are allowed at any one time. To log everyone out, restart your ViewStation.

Presentations

Symptom	Cause	Solution
Web browser does not allow display of PowerPoint presentations from the PC to the ViewStation.	Wrong version of Web browser.	Presenting PowerPoint slides works with Microsoft Internet Explorer version 3.02 or higher on Windows 95/98/ME and Windows NT/2000 Workstation. Presenting PowerPoint slides also works with Internet Explorer 5.5 on Windows 95/98/ME/2000. You may need to load service packs to your browser. This function does not work with Netscape Communicator or Netscape Navigator.
Cannot connect to the PC from the ViewStation for presentation. The PC name is there but the PC presentation cannot be accessed when the SLIDES button is pressed.	Incorrect password.	Enter correct password that was entered on the PC.
	Firewall between the ViewStation and the PC.	Consult your IT manager.
	Too many presenters. The ViewStation allows a maximum of eight presenters or PCs to be logged on at one time.	Have extra presenters disconnect.
Snapshots and presentations cannot be accessed though the PC has access to the main Web page of the ViewStation.	Too many viewers logged in. The ViewStation supports up to 15 viewers via the Web browser in a point-to-point call, up to10 viewers in a 3-way call, and up to 8 viewers in a 4-way call.	Have extra viewers disconnect. Change the slide-viewing password on the **Security** screen to allow only authorized viewers.

Symptom	Cause	Solution
Cannot view presentation or snapshots from the web.	Security level set to “High” on Web browser.	Lower the security level on the Web browser to “Medium” or “None.”
	Wrong version of web browser.	For viewing snapshots or slides from the Web, the ViewStation supports Internet Explorer 3.02 or higher. The ViewStation supports Netscape 4.0 or higher.
	Incorrect viewing password.	To check the slide and snapshot viewing password and other information about your presentation, press the INFO button on the remote control during a presentation. The viewing password may be changed on the **Security** screen.
PowerPoint presentation does not export.	Wrong version of Microsoft PowerPoint.	Use Microsoft PowerPoint 97 or 2000.
	Insufficient disk space.	Slides are converted to JPEG files and are stored in the Windows/Temp directory on your PC. Create more disk space on your PC.
	There are too many presentations on the ViewStation. Only eight presentations are allowed.	Delete some presentations from the ViewStation and restart the system.
	Presentation is too large.	Separate large presentations into two smaller presentations.

System Control

Symptom	Cause	Solution
System does not respond to the hand-held remote control.	No batteries in the remote control.	The green light at the front of the ViewStation should blink with each button pressed on the remote control.
	Batteries installed incorrectly.	Insert batteries in the correct +/- position.
Low battery icon on the screen.	Low battery in the remote control.	Replace the batteries in the remote control with three AAA batteries.

A

Network Address Translation

Network Address Translation (NAT) lets home office or small network environments use internal IP addresses for the devices within the network, while using one external IP address to communicate with the outside world (Wide Area Network). However, many Small Office Home Office (SOHO) routers provide NAT services that are not fully H.323 compliant.

Therefore, this solution is provided to enable the user make calls *outside* the internal network.

Note At this time, it is not possible to make video conferences calls within the internal network when using the NAT setting.

To make video conferencing calls within the network when using this solution, simply de-select the **System is behind a NAT** option and make the call. Re-select the **System is behind a NAT** option to re-activate this feature and make external calls.

Before You Start Configuring NAT

1. Determine your NAT's external (WAN) IP address. This is the address assigned to your NAT's external interface (connected to the Internet).
2. Determine the IP address of your ViewStation. This can be found on the **System Information** screen.

Setting up NAT

1. Go to the **Quality of Service and Firewalls** screen (**System Info > Admin Setup > LAN/H.323 > H.323 > QoS**).
2. Select **Use Fixed Ports**.
3. Select **System is behind a NAT.**

4. Enter the NAT's external IP address into the **NAT outside (WAN) address** field.

   Write down the Fixed TCP and UDP port numbers displayed on this screen. These numbers typically are the following default numbers:

   TCP: 3230 to 3231

   UDP: 3230 to 3235

5. In your NAT, reset the fixed ports from step 4 to be permanently open, and redirect them to the IP address of your ViewStation.
6. To accept incoming calls, open and redirect port 1720 to the IP address of your ViewStation.

B

Video and Audio Input and Output Levels

Video Levels

This information applies to all Polycom videoconferencing products.

Video Output Levels

Composite and S-video outputs:

- 75 ohm output typical
- NTSC or PAL video standard waveform
- 1.0 Vpp typical per NTSC/PAL standard
- All video outputs are DC coupled

Video Input Levels

Composite and S-video inputs:

- 75 ohm input termination
- NTSC or PAL video standard waveform
- 1.0 Vpp typical per NTSC/PAL standard expected input
- All video outputs are DC coupled

Audio Levels

Audio Output Levels

RCA audio output connectors:

- 800 ohm maximum output impedance
- 1.0 Vpp full scale output typical
- All audio outputs are AC coupled

Audio Input Levels

RCA audio input connectors

- 10 K ohm minimum input impedance
- 1.0 Vpp full scale input expected
- All audio inputs are AC coupled

C

V.35 Technical Information

General V.35 Information

The ViewStation is designed to be compatible with tested network equipment without any modification from the user. If your network equipment varies from conventional V.35 video implementations, you can adjust the operation of the signals. Use the following technical information with information provided by your network equipment vendor to customize your V.35 interface.

Serial Interface Control Signals

The following table describes the configuration of each signal.

Signal (Cable Pin)	Direction	Description	Configuration Option
ST (TC/TT)	OUT	Send Timing (clock)	Normal: falling edge sends data Inverted: rising edge sends data
RT (RC)	IN	Receive Timing (clock)	Normal: rising edge receives data Inverted: falling edge receives data
RTS (RTS)	OUT	Request To Send	Normal: high voltage is logic 1 Inverted: low voltage is logic 1
DCD (DCD)	IN	Data Carrier Detect	Normal: high voltage is logic 1 Inverted: low voltage is logic 1 Filter: allow DCD to drop for 60 seconds before changing call state
CTS (CTS)	IN	Clear To Send	Normal: high voltage is logic 1 Inverted: low voltage is logic 1
DTR (DTR)	OUT	Data Terminal Ready	Normal: high voltage is logic 1 Inverted: low voltage is logic 1 On: constant high voltage Note: if set to ON, inverted is not an option.
DSR (DSR)	IN	Data Set Ready	Normal: high voltage is logic 1 Inverted: low voltage is logic 1 Answer: Use DSR as a Ring-In indicator

State Machine

The V.35 State Machine describes how the V.35 interface signals handshake with the network interface equipment during call establishment.

Dial Out State Machine

State	ViewStation Signals	Network Equipment Signals
1	Initial State: DTR = 0 <note 3> RTS = 0 <note 2> CRQ = 0 USER INITIATES CALL	Initial State: RI = 0 DLO = 0 ACR = 0 DSR = 0
2	DTR = 1<note 3>	
3	Wait 10 ms	
4	CRQ = 1	
5		PND = 1
6	Set Digit (NB1,NB2,NB3,NB4)	
7	DPR = 1	
8		PND = 0
9	DPR = 0	
10	If not the last digit, go to state 4 otherwise continue	
11		Call connects on network
12		DSR = 1 AND/OR DCD = 1 (AND/OR DSR = 1 <note 1>)
13	RTS = 1<note 2>	
14	DATA FLOW STARTS	DATA FLOW STARTS
	User Hang-up	Far End Hang-up

State	ViewStation Signals	Network Equipment Signals
15	RTS = 0 <note 2> DTR = 0 <note 3> CRQ = 0 All signals go low if Far End or User hang-up is detected.	DSR = 1 to 0, OR DCD = 1 to 0 A falling edge on DSR or DCD is interpreted by the VS4000 as a hang-up.
16	IDLE DTR = 0 <note 3> RTS = 0 <note 2> CRQ = 0	IDLE RI = 0 DLO = 0 ACR = 0 DSR = 0

Note 1: DSR is used as a ring-in indicate if DSR is set to ANSWER in the **V.35 Advanced Configuration** screen.

Note 2: RTS does not act as shown but act as a resync-pulse if **Security/Crypto-Resync** is set to ON.

Note 3: DTR does not act as shown but remains at a high voltage if DTR is set to ON in the **V.35 Advanced Configuration** screen.

In-bound Call State Machine

State	ViewStation Signals	Network Equipment Signals
1	Initial State: DTR = 0 <note 3> RTS = 0 <note 2> CRQ = 0	Initial State: RI = 0 DLO = 0 ACR = 0 DSR = 0
	USER INITIATES CALL	
2	DTR = 1<note 3>	
3	Wait 10 ms	
4	CRQ = 1	
5		PND = 1
6	Set Digit (NB1,NB2,NB3,NB4)	
7	DPR = 1	
8		PND = 0

State	ViewStation Signals	Network Equipment Signals
9	DPR = 0	
10	If not the last digit go to state 4; otherwise continue.	
11		Call connects on network
12		DSR = 1 AND/OR DCD = 1 (AND/OR DSR = 1 <note 1>)
13	RTS = 1<note 2>	
14	DATA FLOW STARTS	DATA FLOW STARTS
	User Hang-up	Far End Hang-up
15	RTS = 0 <note 2> DTR = 0 <note 3> CRQ = 0 All signals go low if Far End or User hang-up is detected.	DSR= 1 to 0, OR DCD= 1 to 0 A falling edge on DSR or DCD is interpreted by the VS4000 as a hang-up.
	IDLE DTR = 0 <note 3> RTS = 0 <note 2> CRQ = 0	IDLE RI = 0 DLO = 0 ACR = 0 DSR = 0

Note 1: DSR is used as a ring-in indicate if DSR is set to ANSWER in the **V.35 Advanced Configuration** screen.

Note 2: RTS does not act as shown but act as a resync-pulse if **Security/Crypto-Resync** is set to ON.

Note 3: DTR does not act as shown but remains at a high voltage is DTR is set to ON in the **V.35 Advanced Configuration** screen.

Nondialed User-Initiated Call State Machine

State	ViewStation Signals	Network Equipment Signals
1	Initial State: DTR = 0 <note 3> RTS = 0 <note 2> CRQ = 0	Initial State: RI = 0 DLO = 0 ACR = 0 DSR = 0
	USER INITIATES CALL	
2	DTR = 1<note 3>	
3	RTS = 1<note 2>	
4		DCD = 0 to 1
5	DATA FLOW STARTS	DATA FLOW STARTS
	User Hang-up	Far End Hang-up
6	RTS = 0 <note 2> DTR = 0 <note 3> CRQ = 0 All signals go low if Far End or User hang-up is detected.	DSR= 1 to 0, OR DCD= 1 to 0 A falling edge on DSR or DCD is interpreted by the ViewStation as a Hang-up. <note 4>
7	IDLE DTR = 0 <note 3> RTS = 0 <note 2> CRQ = 0	IDLE RI = 0 DLO = 0 ACR = 0 DSR = 0

Note 1: DSR is not used as a ring-in indicator if DSR is set to ANSWER in the **V.35 Advanced Configuration screen**.

Note 2: RTS does not act as shown but acts as a resync-pulse if **Security/Crypto-Resync** is set to ON.

Note 3: DTR does not act as shown but remains at a high voltage if DTR is set to ON in the **V.35 Advanced Configuration** screen.

Note 4: If DCD filter is set to ON in the **V.35 Advanced Configuration** screen, the system does not react to a low DCD until DCD has been low for 60 seconds.

Nondialed Network-Initiated Call State Machine

State	ViewStation Signals	Network Equipment Signals
1	Initial State: DTR = 0 <note 3> RTS = 0 <note 2> CRQ = 0	Initial State: RI = 0 DLO = 0 ACR = 0 DSR = 0
		USER INITIATES CALL
2		DCD = 0 to 1
3	DTR = 1<n	
4	RTS = 1<note 2>	
5	DATA FLOW STARTS	DATA FLOW STARTS
	User Hang-up	Far End Hang-up
6	RTS = 0 <note 2> DTR = 0 <note 3> CRQ = 0 All signals go low if Far End or User hang-up is detected.	DSR= 1 to 0, OR DCD= 1 to 0 A falling edge on DSR or DCD is interpreted by the ViewStation as a hang-up. <note 4>
7	IDLE DTR = 0 <note 3> RTS = 0 <note 2> CRQ = 0	IDLE RI = 0 DLO = 0 ACR = 0 DSR = 0

Note 1: DSR is used as a ring-in indicator if DSR is set to ANSWER in the V**.35 Advanced Configuration** screen.

Note 2: RTS does not act as shown but acts as a resync-pulse if **Security/Crypto-Resync** is set to ON.

Note 3: DTR does not act as shown but remains at a high voltage if DTR is set to ON in the **V.35 Advanced Configuration** screen.

Note 4: If DCD filter is set to ON in the **V.35 Advanced Configuration** screen, the system does not react to a low DCD until DCD has been low for 60 seconds.

Crypto Resync

If a cryptographic encoder/decoder is connected between the ViewStation and the network, it may require a resynchronization signal from the ViewStation. This is a signal indicating that the ViewStation has lost video synchronization due to a network problem and requires that the cryptographic encoder/decoder resync with the equipment at the other end of the connection.

To enable this feature select **System Info > Admin Setup > Security**. When you select the **Crypto Resync** option, the **Crypto Resync Pulse** screen appears.

On this screen, you can enable crypto resync, set the time between pulses (in seconds), and set the pulse width (in milliseconds).

If the ViewStation is in a call and it loses H.320 synchronization, it continuously sends the resynchronization pulses at the specified rate with the specified pulse width until H.320 regains synchronization.

The resync pulse is output on the Ready-To-Send or RTS signal. If this feature is enabled, the RTS signal no longer functions as the RTS signal. Most installations that use encryption equipment require a custom cable. The cable should be designed to route the RTS signal from the ViewStation to the appropriate resync input on the encryption equipment. The encryption equipment can get its RTS input from the ViewStations DTR output or by wiring this input to an always-high tie-off. In this nondialed mode, the DTR output and RTS output act exactly the same. Refer to the V.35 State machine descriptions in this appendix for more information on these signals.

V.35 Cabling Diagram and Schematic

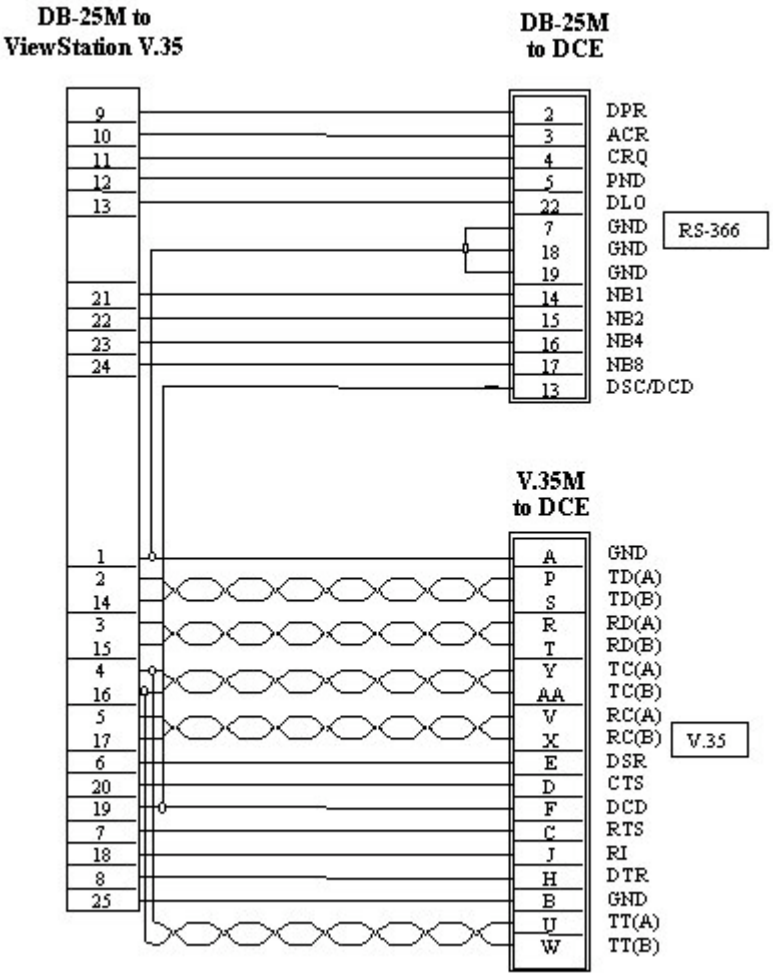

Figure C-1. V.35 Y Cable Pinout

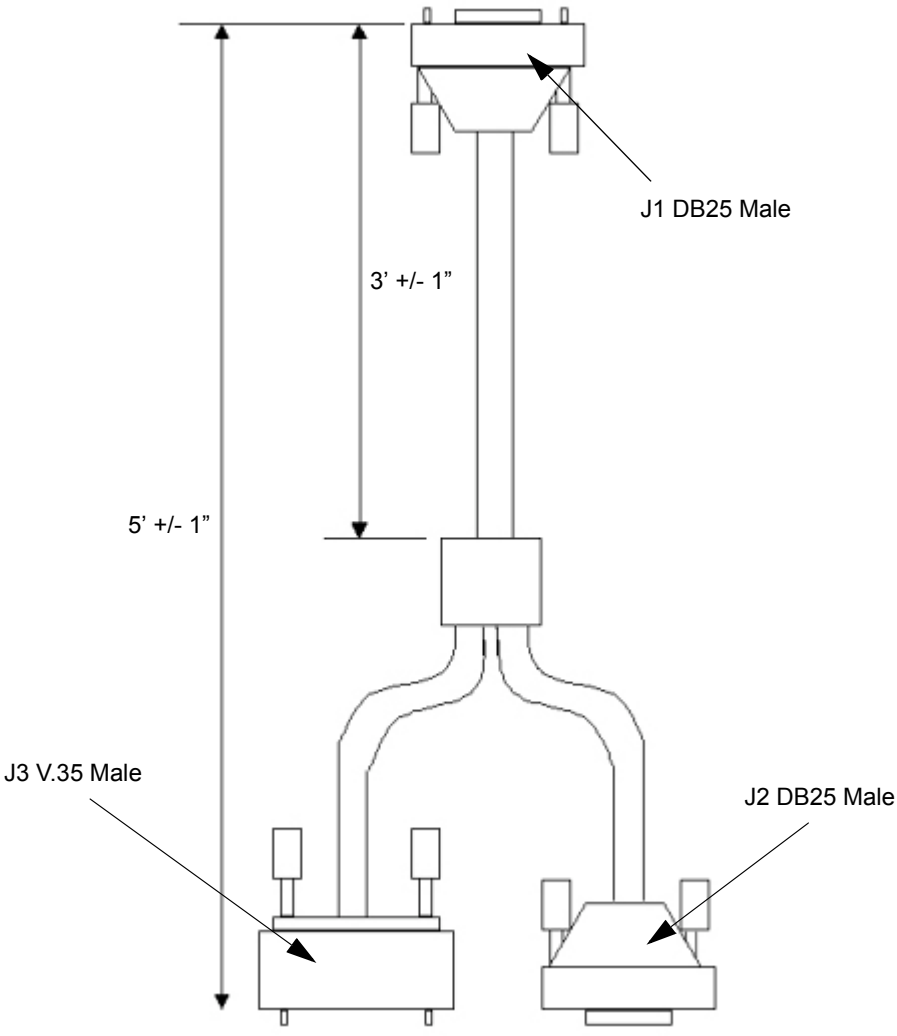

Figure C-2. ViewStation V.35 Cable Diagram

D

ISDN Information

If you are not connected to an internal phone system often, called a PBX, you need to connect the ISDN cables from your ViewStation IMUX module to the NT-1 device. An NT-1 device is used with the North American ISDN U interface.

The lights on the IMUX indicate whether or not the ISDN lines are connected properly. The lights, however, do NOT indicate that the SPIDs, switch type, and ISDN numbers have been correctly entered into the ViewStation.

The following are sample NT-1 settings. For more detailed diagnostic information, see the manual that was shipped with your particular NT-1 device.

Sample NT-1 Settings

On an ADTRAN NT-1 ACE ISDN termination unit, you should see the following status lights when your ISDN lines are properly connected.

Status		
Ready	Error	Power
ON	OFF	ON

The dip switches should be set as follows:

Switches	
Configuration	**Termination**
SHORT	NONE
LONG	50
	100

On a Motorola NT1D, you should see the following status lights when your ISDN lines are properly connected.

Status					
SC	ACT	LB	LP	RP	RPR
ON	ON	OFF	ON	OFF	OFF

The dip switches should be set as follows:

Switches			
1	2	3	4
ON	ON	ON	ON

On an Alpha Telecom (AT1) UT620F, you should see the following status lights when your ISDN lines are properly connected.

Status		
Power	ST&U	Back
ON	OFF	OFF

The dip switches should set as follows:

Switches			
1	2	3	4
ON	ON	OFF	ON

ISDN Switches

Depending on the type of ISDN lines you are using, your service provider may assign zero, one, or two SPIDs per line.

Switch Type	SPIDs Allocated
AT&T 5ESS Custom	None
AT&T 5ESS NI-1	1 per B-channel
NT DMS-100 NI-1	1 per B-channel
NI-2	1 per device
Siemens EWSD NI-1	1 per B-channel
Siemens EWSD NI-2	1 per device
International (outside United States or Canada)	None

ISDN Errors

The following table describes ISDN standard cause values that indicate ISDN call status. Although the cause values are standardized, each ISDN service provider phrases the cause differently. Therefore, the causes shown in the table might not be the exact messages that appear on your television monitor.

Code	Cause	Definition
1	Unassigned number	The switch received the sent ISDN number in the correct format; however, no destination equipment uses the number.
2	No route to specified transit network	The ISDN exchange can not recognize the intermediate network through which to route the call.
3	No route to destination	The destination address is not serviced by the intermediate network through which the call is routed.
6	Channel unacceptable	The specified channel does not provide sufficient service quality to accept the requested connection.
7	Call awarded and delivered	The user is assigned an incoming call that is being connected to an already-established call channel.
16	Normal call clearing	Normal call clearing has occurred.
17	User busy	All B channels are in use; the called system acknowledges the connection request, but is unable to accept the call.

Code	Cause	Definition
18	No user responding	The destination does not respond to the call so the connection cannot be completed.
19	No answer from user (user alerted)	The destination fails to complete the connection within the prescribed time after responding to the connection request. The problem occurs at the remote end of the connection.
21	Call rejected	The destination rejects the call for an unknown reason, although capable of accepting the call.
22	Number changed	No system has been assigned the ISDN number used to set up the call. (The diagnostic field of the message may return an alternate address assigned to the called equipment.)
26	Non-selected user clearing	The destination rejected the call, although capable of accepting it, because the call was not assigned to the user.
27	Destination out of order	A signaling message can not be delivered because the interface is not functioning correctly, and therefore the destination cannot be reached. This condition might be temporary, though of extended duration; for instance, remote equipment might be turned off.
28	Invalid number format	Destination address presented in an unrecognizable format or an incomplete destination address prevented the connection from being established.
29	Facility rejected	The network cannot provide facility requested by the user.
30	Response to STATUS ENQUIRY	The prior receipt of a status inquiry message generated the status message.
31	Normal, unspecified	A normal error code has occurred with no standard cause applying. No resulting action is required.
34	No circuit/channel available	The call cannot be taken because no appropriate channel is available to establish the connection.
38	Network out of order	The network is not functioning correctly and this condition may persist for an extended period. The call cannot reach the destination and an immediate attempt to reconnect fails.
41	Temporary failure	The network is not functioning correctly and an error occurred. The problem will be resolved shortly.

Code	Cause	Definition
42	Switching equipment congestion	The network switching equipment is temporarily overloaded and the destination cannot be reached.
43	Access information discarded	The requested access information cannot be provided by the network.
44	Requested circuit/channel not available	An unknown reason prevents the remote equipment from providing the requested channel. This might be a temporary problem.
47	Resource unavailable, unspecified	An unknown reason prevents the remote equipment from providing the requested channel. This might be a temporary problem.
49	Quality of service unavailable	The network cannot provide the requested quality of service (as defined by CCITT recommendation X.213). This might be a subscription problem.
50	Requested facility not subscribed	The remote equipment supports the requested supplementary service, but only by subscription.
57	Bearer capability not authorized	The caller has requested a bearer capability that the network can provide, but the user is not authorized to use. This might be a subscription problem.
58	Bearer capability not presently available	The network normally provides the requested bearer capability, but not at the present time. This might be due to a temporary network problem or to a subscription problem.
63	Service or option not available, unspecified	An unspecified reason prevents the network or remote equipment from providing the requested service option. This might be a subscription problem.
65	Bearer capability not implemented	The network cannot provide the bearer capability requested by the user.
66	Channel type not implemented	The requested channel type is not supported by the network or the destination equipment.
69	Requested facility not implemented	The supplementary service is not supported by remote equipment.
70	Only restricted digital information bearer is available	The network is unable to provide unrestricted digital information over bearer capability.
79	Service or option not available, unspecified	The network or remote equipment is unable to provided the requested service option for an unspecified reason. This might be a subscription problem.
81	Invalid call reference value	The remote equipment received a call with a call reference that is not currently in use on the user-network interface.

Code	Cause	Definition
82	Identified channel does not exist	The receiving equipment is requested to use a channel that is not activated on the interface for calls.
83	A suspended call exists but this call identity does not	The network received a call resume request. The call resume request contained a call identify information element indicating that the call identity is in use for a suspended call.
84	Call identity in use	The network received a call resume request that contained a Call Identify information element indicating that it is in use for a suspended call.
85	No call suspended	The network received a call resume request when there was not a suspended call pending. This might be a transient error that will be resolved by successive call retries.
86	Call having requested call identity has been cleared	The network received a call resume request. The call resume request contained a call identity information element, which once indicated a suspended call. However, the suspended call was cleared either by timeout or by the remote user.
88	Incompatible destination	Indicates that an attempt was made to connect to non-ISDN equipment, such as to an analog line.
91	Invalid transit network specified	The ISDN exchange was asked to route the call through an unrecognized intermediate network.
95	Invalid message, unspecified	An invalid message was received, and no standard cause applies. This is usually due to a D-channel error. If this error occurs systematically, report it to your ISDN service provider.
96	Mandatory information element is missing	The receiving equipment received a message that did not include one of the mandatory information elements. This is usually due to a D-channel error. If this error occurs systematically, report it to your ISDN service provider.
97	Message type nonexistent or not implemented	The receiving equipment received an unrecognized message, either because the message type was invalid or because the message type was valid but not supported. Cause 97 is due to either a problem with the remote configuration or a problem with the local D channel.

Code	Cause	Definition
98	Message incompatible with call state or message type nonexistent	The remote equipment received an invalid message, and no standard cause applies. Cause 98 is usually due to a D-channel error. If this error occurs systematically, report it to your ISDN service provider.
99	Information element nonexistent or not implemented	The remote equipment received a message that includes information elements which were not recognized. This is usually due to a D-channel error. If this error occurs systematically, report it to your ISDN service provider.
100	Invalid information element contents	The remote equipment received a message that includes invalid information in the information element. This is usually due to a D-channel error.
101	Message not compatible with call state	The remote equipment received an unexpected message that does not correspond to the current state of the connection. This is usually due to a D-channel error.
102	Recovery on timer expire	A timer expire initiated an error-handling (recovery) procedure. This problem is typically temporary.
111	Protocol error, unspecified	An unspecified D-channel error when no other standard cause applies.
127	Interworking, unspecified	An event occurred, but the network does not provide causes for the action that it takes. The precise problem is unknown.
145	ISDN layer 1 and/or 2 link not established	User needs to check cabling, ISDN adapter status, and network connections.
146	ISDN layer 3 connection to the ISDN switch/network inactive	A switch protocol error exists, or (in the United States or Canada) a SPID assignment problem.
255	ISDN command processing error	The ISDN signaling code has encountered an error processing an ISDN action. ISDN adapter busy; wait and retry.

E

Optional Equipment Configuration

StreamStation Configuration

Follow the configuration instructions in this section only if you are planning on using the StreamStation with your Polycom ViewStation videoconferencing system.

1. Connect one end of the supplied Audio/Video cable to the ViewStation VCR OUT ports.

2. Connect the other end of the same cable to the ports on the ViewStation labeled Audio Input 1 and Video Input 1.

3. Using the ViewStation remote control, go to **System Info > Admin Setup > Data Conference**.

4. Enter the **Site Name** of the StreamStation in the **Data Conference** field (Center text field).
5. Re-start the ViewStation.

You have now completed the installation process.

To verify that the ViewStation is properly working with the StreamStation over the LAN, follow the steps described below:

1. Using the ViewStation remote control, select **System Info > Diagnostics > Advanced Stats**.
2. On the **Advanced Statistics** screen, verify that there is a “+” next to the Data conference listing. If there is a minus sign, the ViewStation is not configured to work with the StreamStation.

Troubleshooting Hints:

Verify that the site name that you entered in Step 4 above is exactly the same as the site name on the StreamStation.

Verify that both systems are properly installed on the LAN by pinging each IP address from your desktop system.

If they are both accessible on the LAN, make sure both systems are on the same LAN segment and subnet, otherwise both systems may have difficulty locating each other over the LAN.

Using a ShowStation IP

The ShowStation IP works best with two ViewStations, two ShowStations with LAN cards, and an RJ-45 cable. Follow these steps to connect and use this configuration:

1. Use the provided blue-tipped RJ-45 cable to connect the ShowStation LAN card to the blue LAN port on the back of the ViewStation. You can also connect the ShowStation and ViewStation to the same LAN.
2. Find the LAN name of the ShowStation by clicking on the **Toolbar** icon on the main menu of the ShowStation. The Site Name is under the Preferences tab.
3. Power on the ViewStation.
4. Select **System Info>Admin Setup>Data Conference** and enter the name of the ShowStation on the **Data Conference** screen.

Place a video call between the two ViewStations. When the ViewStations connect, the ShowStations synchronize with one another automatically. Once they connect, a whiteboard appears on the ShowStations' LCD displays. It takes approximately 30 seconds for the whiteboard to appear once the video call is placed. You are now ready to use your ShowStation.

Glossary

ABC

Annex D	The second frame relay standard extension dealing with the communication and signaling between customer-premises equipment and frame-relay-network equipment for the purpose of querying network status information.
ATT 4ESS	AT&T's large toll telephone switch. It will handle 100,000 trunks and over 500,000 attempts at making a call each hour.
ATT 5ESS	AT&T Class 5 digital central office.
ADSL	Asymmetrical Digital Subscriber Line. A communications technology used to transmit digital data over telephone wires. It is expected to transmit up to six megabits per second and be used for video-on-demand services to telephone company customers.
Analog Line	A telephone line that transmits and receives signals in variable, continuous waveforms that are generated by telephones, fax machines, models, etc. The signal transmitted is a true electrical representation of the original source audio, as opposed to a coded digital signal that must be decoded at the far end.

ARJ	Admission Reject Message. In an H.323 environment, the ARJ is the message from the Gatekeeper to an end point rejecting the end point's request to connect to another end point.
ARQ	Admission Request Message. In an H.323 environment, the ARQ is the message to the Gatekeeper from an end point requesting a connection to another end point.
Audio Bandwidth	The audio frequencies that a device can handle. This refers to the range of sound (treble and bass or voices for speakerphones).
Automatic Voice Tracking	A feature on Polycom ViewStations that allows the camera to point towards the person speaking.
Bandwidth	The data-carrying capacity of a network connection, used as an indication of speed. For example, an Ethernet link is capable of moving 10 million bits of data per second. A Fast Ethernet link can move 100 million bits of data per second – 10 times more bandwidth.
Bits per second (bps)	The amount of information that passes through a transmission line in one second. A bit is one-eighth of a byte.
Bonding Calls	In ISDN BRI transmissions, bonding refers to joining the two 64 Kbps B channels together to get one channel of 128 Kbps.

BRI	The ISDN Basic Rate Interface, or BRI, provides two B channels and one 16 Kbps D channel (2B+D) for a total of 144 Kbps (128K for Video).
Bridge	A device that passes packets between multiple network segments using the same communications protocol. If a packet is destined for a user within the sender's own network segment, the bridge keeps the bridge packet local. If the packet is bound for another segment, the passes the packet onto the network backbone. Also, in videoconferencing, a Multi-Point Control Unit. See MCU.
CIF	Common Intermediate Format. An intermediate video format. CIF resolution is 352x288 pixels. QCIF (quarter CIF) is 176x144 pixels.
Client	A networked PC or terminal that shares services with other PCs. These services are stored on or administered by a server.
Conference Call	Any voice or data call that establishes contact with two or more end points, such that each end point is able to communicate to the others. Conference calls require some type of service that links all the end point together, and transmits all voice/data to each end point. This service can be provided by a PBX (typically by using the flash key), or by contacting a conference bridge.

DEF

Data Conferencing	Enables people in different locations to work on the same document via networked computers. Also referred to as collaborative computing.
DCP	Polycom products equipped with an interface that allows direct connection to Lucent Definity PBX's. **Note** This is only applicable to Definity PBXs that can be populated with TN2224, TN2214 or TN2181.
DCP Network Interface Module	The Avaya DCP Module has the same network capacity as a Polycom Quad BRI network interface module. The chief difference is that it connects to an Avaya PBX rather than ISDN network interfaces.
DHCP	Dynamic Host Configuration Protocol. DHCP servers permit multiple devices to share a group of IP addresses, assigning one to a specific device as needed.
Digital Line	A telephone line that carries signals in discontinuous streams of on and off pulses. The audio source must be coded into on and off pulses, and decoded into an analog signal at the far end destination. PBX telephone systems and ISDN are examples of systems that use digital signaling. PBX and digital Centrex systems use proprietary non-standard signaling, forcing customers to purchase proprietary phones.

Digital or Proprietary Device	Telephone equipment designed specifically for connection to a particular brand and model of PBX.
DSL	Digital Subscriber Line. Uses existing copper telephone lines and connects to the phone company's Central Office (CO). DSL transforms these phone lines into multi-megabit data pipes for digital video and data.
DB-25	The standard 25-pin connector used for RS-232 serial data communications. In a DB-25 there are 25 pins, with 13 on the top row and 12 on the bottom. DB-25 connectors are available in male and female.
DVD	Digital Video Disc.
End point	A terminal, site, gateway, conferencing system, or MCU.
Ethernet	10 Mbps or 100 Mbps LAN technology based on CSMA/CD. The Ethernet standard is called 802.3 and was ratified by the IEE. Ethernet was one of the first LAN technologies and has been very popular for workgroups.
Far End	The party or parties connected to a call.
Fast Ethernet	100 Mbps LAN technology based on CSMA/CD used for both high bandwidth users in workgroups and for backbones.

Firewall	A network node set up as a boundary to prevent traffic from one segment from crossing over into another.
fps	Frames per second. A measure of quality of a video signal. NTSC TV standard in North America uses 30 fps. European standards are 25 fps.
FTP	File Transfer Protocol. A part of the chief Internet protocol stack, or group (TCP/IP) used for transferring files from Internet servers to your computer.
Full Duplex	Transmission in two directions simultaneously (bi-directional communication). Full-duplex speakerphones allow both sides of the call (or multiple sides) to be talking simultaneously without any clipping of words or loss of volume.

GHIJK

Gatekeeper	An H.323 device that provides address translation, control access, and bandwidth management to the LAN.
Gateway	An H.323 entity that provides real-time, two-way communication between dissimilar (H.323 and H.320) end points operating across dissimilar networks by reformatting data and protocols.
GUI (Graphical User Interface)	A graphics-based user interface that incorporates icons, pull-down menus, and a mouse. The GUI has become the standard way users interact with a computer. The three major GUIs are Windows, Macintosh, and Motif. In a client/server environment, the GUI resides in the user's client machine.
H.320	The most common family of ITU-T videoconferencing standards. These standards allow ISDN BRI videoconferencing systems to communicate.
H.323	Serves as the umbrella for a set of standards defining real-time multimedia communications for packet-based networks, otherwise known as IP telephony. H.323 is comprised of the following standards: H.225, H.245, G.711, G.722, G.723.1, G.728, G.729
Intranet	A new network model based on the idea of making information and communications as accessible on internal corporate networks as it is on the public Internet.

ISP	Internet Service Provider.
IMUX	Inverse Multiplexer. Equipment that combines 64Kbps channels and presents them to the user's terminal equipment as if they were a single larger bandwidth channel.
IP	Internet Protocol. An IP address is a number that identifies a computer connected to the Internet. Every computer that is connected to the Internet must have unique IP address. Currently, an IP address consists of four sections separated by periods. Each section contains an 8-bit value represented as a number ranging from 0 to 255. The allocation of these IP addresses follows a two-level architecture that assigns IP numbers to a network and the hosts on that network.
IP Precedence	IP precedence tells downstream networking equipment (mainly routers) to give priority to audio and video data. It marks each audio and video packet with a user-defined precedence (the default is 4). Only audio, video, and far-end camera control-packets are marked. Control packets (such as opening and closing of connections, channels, etc.) are not marked with precedence. The user may specify any one of 8 levels (0-7) of precedence with 0 signifying no priority and 7 signifying the highest priority. It is recommended by networking equipment vendors to use 4 for multimedia data. By default, IP precedence is disabled by most routers and is not enabled on the Internet.
ISDN	Integrated Services Digital Network. Fully digital telephony service, available at 128 Kbps (BRI), 1.544 Mbps (PRI), and

Broadband ISDN (2 Mbps - 600 Mbps). ISDN usually consists of 2 B channels of 64 Kbps, and one D channel of 16 Kbps on one RBI (basic rate interface). The D channel is used for out-of-band signaling that does not interfere with the flow of information going through the B channels.

LMN

LAN	Local Area Network. A communications network that serves users within a confined geographical area. It is made up of servers, workstations, a network operating system, and a communications link.
MCU	Multi-Point Conferencing Unit or Multi Control Unit. Hardware at a central site in a videoconferencing network that allows 3 or more videoconferencing systems to participate in an interactive multi-way conference.
Multicast	Multicast is a one-to-many transmission that implies sending to several designated recipients, whereas broadcast implies sending to everyone connected to the network.
Near End	Your end site or local the end site of the videoconference.
NT1	Network Termination type 1. The device that converts the ISDN BRI "U" interface from the telecommunications service provider to the “S/T” interface used by ISDN products and systems.

OPQ

PTZ	Pan/Tilt/Zoom. Pan – rotating camera to the left or right. Tilt – rotating camera up or down. Zoom – making image larger (telephoto) or smaller (wide angle).
POTS or PSTN	Plain Old Telephone Service or Public Switched Telephone Network. The basic service that supplies a single analog telephone unit with access to the public switched network (via the local telephone service provider). Refers to the worldwide voice telephone network accessible to all those with telephones and access privileges.
Private Branch eXchange (PBX)	A private telephone switching system, usually located on a customer's premises with an attendant console. It is connected to common group of lines from one or more central offices to provide service to a number of individual phones. Most PBXs allow analog extensions on the system, allowing access to special features such as conferencing and transferring to analog devices. A PBX connects to the telephone lines supplied by the CO (Central Office).
QCIF	Quarter CIF. A quarter of the Common Intermediate Format = 176 X 144 pixels
QoS	Quality of Service. This allows guaranteed bandwidth and packet delivery between end points over a packet network.

RST

RJ-9	Four-conductor telephony jack, commonly used for telephone handsets. Polycom uses RJ-9 connectors for all of the Extension microphone connections.
RJ-11	A six-conductor modular jack that is typically wired with four conductors (four wires). Polycom uses RJ-11 modular jacks for access to the analog telephone network. RJ-11 is used on all standard telephones in the U.S. for connecting to a PSTN.
RJ-45	An eight-conductor modular jack commonly used for data communications over standard telephone wire.
Server	A computer or even a software program that provides services to clients – such as file storage (file server), programs (application server), printer sharing (print server), fax (fax server), or modem sharing (modem server). See also client.
Streaming	The term streaming refers to a common internet technology pioneered by Netscape and Real Networks, rather than waiting for an entire file to download to your computer, portions of the file are buffered into memory then begin playing. Streamed content can be prerecorded or live.

UVW

UI or User Interface	See GUI.
V.35	An ITU standard for high-speed synchronous data exchange. In the U.S., V.35 is the interface standard used by most routers and DSUs that connect to T-1 carriers.
WAN	Wide Area Network. Business with multiple LANs geographically dispersed locations will use the public carrier network to carry data between these locations. Typical WAN services provided by the pubic carrier are Frame Relay, X.25, and ISDN for carrying data.
Whiteboard	Software that allows you to share images and to annotate those images.

XYZ

Zulu Time	Also known as Greenwich mean time. Now called Coordinated Universal Time (UTC.)

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